

# BUSINESS TRANSFORMATION

APRIL 2020

THE CHANGE TO FUTURISTIC BUSINESS

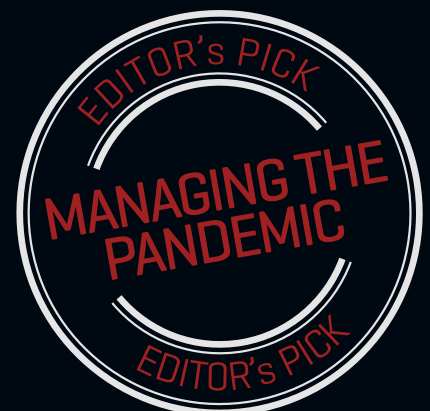
[biznesstransform.com](http://biznesstransform.com)



**COVID-19**

## MANAGING THE PANDEMIC

Top executives recommend how best to use technology to manage the impact of the pandemic on day to day operations.







# POWEREDGE TRANSFORMATION WITHOUT COMPROMISE

Explore the potential of the next generation of the Dell EMC PowerEdge server portfolio powered by the latest Intel® Xeon® Processors.

## DESIGNED TO POWER TRANSFORMATION

The most cutting-edge portfolio of Dell EMC PowerEdge servers yet is designed to help customers to drive IT transformation. And it has the power to transform your business too.

Best-in-class Dell EMC PowerEdge 14G servers, featuring the next generation Intel® Xeon® Processor Scalable Family, are built from the ground up with a no-compromise approach – to deliver an end-to-end, fully flexible and cost-effective solution that customers can rely on.

There are loads of business-boosting features to help you win new orders and help your customers bridge the IT resources gap and transform their business:

### >Scalable business architecture

On-demand capacity & performance to meet every core challenge

### >Intelligent automation

Enhanced server room efficiency and embedded diagnostics – no more amber light patrols

### >Integrated security

Build-In IT lifecycle protection and security embedded into hardware and firmware

### >Extend your offering

Offer professional services such as consultancy, deployment, support – plus flexible financing solutions for your customers

### >SUPPORTED BY: Extraordinary new Partner Program

Take a no-compromise approach to building your business by leveraging the potential of the best server platform and the best Partner Program in the industry

Our extraordinary new Partner Program delivers core business benefits and is specifically designed to be: Simple – Predictable – Profitable

Discover the difference – visit [dell EMC.com/partner/PowerEdge14G](http://dell EMC.com/partner/PowerEdge14G)



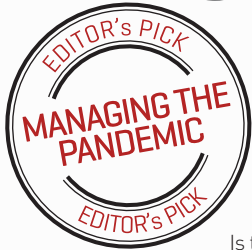
Redington Value  
[Sales.value@redingtonmea.com](mailto:Sales.value@redingtonmea.com)

Intel® Xeon® Processor



APRIL 2020

# CONTENTS



## COVER FEATURE

16

Is this the right time for hypermarkets to automate  
**Alain Kaddoum, Swisslog**

18

How to build your remote teleworker office  
**Alain Penel, Fortinet**

20

Why this pandemic may change the fabric of society  
**Chris Pope, ServiceNow**

22

Why the pandemic needs two teams: Tiger and SWAT  
**Christie Struckman, Gartner**

24

First responders not leveraging AI to control pandemic  
**Dr Jassim Haji, Artificial Intelligence Society Bahrain**

26

What does COVID-19 and cybersecurity have common  
**Dr Mike Lloyd, RedSeal**

28

Pandemic driven work from home remains untested  
**Fiona Mullan, Ding**

30

Why working from home is an enormous stress test?  
**Karl Lankford, BeyondTrust**

32

Managing pandemic is career experience in sales  
**Steve Herz, Gartner.**

33

Managing consequences of the pandemic as a team  
**Mike Hoff, The Alpha Group.**

34

Pandemic also wakeup call for healthcare security  
**Tabrez Surve, F5 Networks**

36

How Asian businesses successfully managed remote work  
**Brian Kropp, Gartner**

37

Best practices for organisations and teleworkers  
**Tim Wood, KPMG Lower Gulf**

38

As CEO what is your COVID-19 disaster recovery plan?  
**Tom De Waele, Bain**

40

How small businesses can start their virtual company  
**Viresh Harduth, Sage**



### OPINION

Social distancing is not social disconnection



### OPINION

Why your customer experience transformation may fail



### OPINION

Digital technologies are irreversibly transforming work



### OPINION

How mobile services are transforming sales models

42-50  
MARKET OUTLOOK

52-53  
LOOKING GLASS



A BRAND NEW WORLD OF COLLABORATION  
AND NETWORKING AWAITS YOU

# BOTS



DOWNLOAD NOW

WE ARE MULTILINGUAL

English • Türkçe • Italiano • اردو • हिंदी •  
Français • Afrikaans • Español



[www.globalcioform.com](http://www.globalcioform.com)

# INTEGRATE INFLUENCE IMPACT



MANAGING DIRECTOR  
Tushar Sahoo  
tushar@gecmmediagroup.com

EDITOR  
Arun Shankar  
arun@gecmmediagroup.com

CEO  
Ronak Samantaray  
ronak@gecmmediagroup.com

GLOBAL HEAD, CONTENT AND STRATEGIC  
ALLIANCES  
Anushree Dixit  
anushree@gecmmediagroup.com

GROUP SALES HEAD  
Richa S  
richa@gecmmediagroup.com

EVENTS EXECUTIVE  
Shriya Nair  
shriya@gecmmediagroup.com

EVENTS EXECUTIVE  
Lhodith Ann  
ann@gecmmediagroup.com

SALES AND ADVERTISING  
Ronak Samantaray  
ronak@gecmmediagroup.com  
Ph: + 971 555 120 490

PRODUCTION, CIRCULATION, SUBSCRIPTIONS  
info@gecmmediagroup.com

**GEC  
MEDIA  
GROUP**

UAE  
223 DMC 9 Dubai Media City, Dubai  
PO Box 500653, Ph: +971 4 368 8523

USA  
31 Foxtail Lan, Monmouth Junction  
NJ 08852, Ph: + 1 732 794 5918

Printed by  
Al Ghurair Printing & Publishing LLC.  
Masafi Compound, Satwa, PO Box: 5613,  
Dubai, UAE

Published by  
Accent Infomedia MEA FZ-LLC  
223 DMC 9 Dubai Media City, Dubai  
PO Box 500653, Ph: +971 4 368 8523

A publication licensed by  
International Media Production Zone, Dubai, UAE  
©Copyright 2018 Accent Infomedia.  
All rights reserved.

While the publishers have made every effort to  
ensure the accuracy of all information in this  
magazine, they will not be held responsible for any  
errors therein.

**COVER CREDIT**

Dong E, Du H, Gardner L. An interactive  
web-based dashboard to track COVID-19 in real time.



## GETTING A GRIP ON THE PANDEMIC

The real time, interactive COVID-19 dashboard hosted by the Center for Systems Science and Engineering at Johns Hopkins University << <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>>>, helps you to gauge the dynamics of the pandemic, and the herculean effort that all countries are putting into it,

especially the UAE, Saudi Arabia and the rest of the GCC countries.

The dynamics graphically illustrated on this Johns Hopkins dashboard lead you to believe that a solution into controlling the pandemic, notwithstanding the crossing of the 1 million detected case mark, may be in hand. Around eight countries account for 90+% of the global detected cases. These include USA, Italy, Spain, Germany, France, Iran, UK, and China.

The innovative Johns Hopkins dashboard allows you to see trends by each country, including the growth curve of the number of cases being added each day. On the positive side, from these top eight, Italy, Spain, Iran, Germany, and China, are now exhibiting a reduction in the number of daily cases detected. For the others, including the US, it remains a long haul. The key to this global challenge may finally emerge from the US government, if it can get the countries think tank and investors to rally behind it.

Managing the fallout of the pandemic, and keeping any semblance of business normalcy, will require a combination of enormous business and sales acumen, as well as technological backbone, for global organisations of any size, to see through. In this issue of Business Transformation BT, we consolidate over 15, some of the best available business and technology advisories on how to manage this pandemic.

Bain's Tom De Waele, questions whether today CEOs have done enough to battle the pandemic. He points out that when organisations rejig their product portfolio at this time, they are opening up new horizons for sales, sometimes permanently. On the flip side, they may also see some customers exiting from their ecosystem, as those customers also reposition themselves, often distancing themselves from existing suppliers. A good benchmark according to Waele, is for the CEO to be more aggressive than the team can imagine.

Christie Struckman at Gartner, explains that managing the pandemic crises requires two types of teams, a Tiger and SWAT team. One for deep ranging strategy and one for rapid action. Members for each team have different mindsets and skills and should ideally be in different teams. Anticipating adverse events is a different task than responding to adverse impacts, she stresses.

Dr Jassim Haji at the Artificial Intelligence Society in Bahrain, feels that AI without a doubt, can speed up the process of COVID-19 vaccine discovery. He also points out that first responders can benefit, since AI does not just predict a disaster will happen, but can also forecast where it will have the most impact.

To learn more and prepare in these days of systematic lockdown, turn the pages of this edition.

Wishing everyone safe working, safe living.

Arun Shankar  
arun@gecmmediagroup.com

# SOCIAL DISTANCING IS NOT SOCIAL DISCONNECTION

The pandemic may be enforcing work and stay at home, but we need not cut-off social communication using voice, chat or video advises Ektaa Sibal.



*Ektaa Sibal is an International Inner Self, Transformation Specialist and an International Meditation Expert, Speaker and a Gifted Energy Healer with inborn intuitive abilities.*

**T**he rapid spread of COVID-19 is a reminder about how interconnected our wellbeing is. We are being challenged to find solutions on how we can run our lives as smoothly as we can while managing our work, our families and our emotional health.

However, crisis such as this also presents various opportunities:

- Sophisticated and flexible use of technology
- Emphasis on harmony
- Revived appreciation for outdoors
- Simple pleasures of life

No one knows exactly what will

come, but there may be many unknown ways that society—government, healthcare, the economy, our lifestyles and more—will change.

One of the transformations that businesses globally have brought about is to encourage remote working. It is exceptional to see that a huge number of people all over the world have started working remotely. This reminds me of the time when during World War II, women in large numbers entered heavy manufacturing for the first time.

However, this time it is astonishing to see that the shift from in-office working, to work at home has happened in days, not months. The credit here goes to technology, which has brought people sitting in different countries together instantly with a click of the button. While remote working has been done to help in social distancing, it does not mean social distancing should lead to disconnection.

Let us look at ways how you can remain connected while working remotely and distancing yourself:

## #1 SET UP VIRTUAL HANGOUT TIME

Whenever possible, connect over video through different tools, schedule meetings over Skype or FaceTime, or schedule virtual dinner party with friends via Google Hangouts. Thanks to the magic of technology, we have lots of ways to keep in touch.

## #2 CHECK ON YOUR NEIGHBORS

When you do something for others, or help others it helps in increasing your happy hormone which can do wonders to your emotional wellbeing. It can be simple things such as keeping a check on the neighbors who are elderly and living alone. Calling them up on a regular basis or even helping them with small errands can help them and give you the satisfaction of doing something good.

## #3 REFRAME YOUR MINDSET

Create a mindset that is positive and instead of living in a state of fear and panic that has been created in the current situation, make your thought process strong and create faith and belief that everything will be okay.

Begin your conversation with positive words, focus on what you can do instead of what you cannot do, do something creative with all the extra time you have at home. This is a great time to enjoy things that you often are too busy to do otherwise. And while it might seem counterintuitive, remember that following guidance and isolating is ultimately a socially generous act, a gesture of community.

While taking care of yourself is hugely important, maintaining the social connections that keeps our mind happy and creates strong communities is crucial, too. We will get through this pandemic by helping each other and businesses will learn to move faster, become more flexible and act in more agile ways, as a result. ■



# COMMITTED PASSIONATE RESPONSIBLE



DOWNLOAD NOW

GEC  
MEDIA  
GROUP

[www.gecmediagroup.com](http://www.gecmediagroup.com)



# WHY YOUR CUSTOMER EXPERIENCE TRANSFORMATION MAY FAIL

A successful roll out requires an enterprise wide innovation strategy, working across silos, explains Dimension Data's Paul Potgieter.



PAUL POTGIETER,  
Managing Director,  
Dimension Data Middle East.

Nine out of ten organisations see customer experience as being a competitive differentiator and consequently this begs the question – how can you transform the customer experience your company delivers and turn it into a competitive edge.

The findings of the Dimension Data Customer Experience Benchmarking report suggest that ease of resolution, customer service agent knowledge and the choice of service channel are the three key factors impacting customer experience.

This insight raises a myriad of perplexing challenges for organisations, and surely the competitive nature in us can get

you thinking about how your organisation matches up to global standards and whether it is beating the customer experience benchmark.

If you believe there is more to be done, you are certainly not alone! A mere 11% organisations that were surveyed reported receiving promoter-level customer experience ratings from their customers.

There is perhaps no factor that has transformed customer experience more rapidly than the advance of digital technologies. Social media, mobility, analytics, cloud, automation, and artificial intelligence are all irrevocably changing the nature of customer experiences – and for the better.

Therefore, your customer experience strategy too needs to be reimaged for the digital age. Doing so requires transformation at every stage – from the solutions you deploy in your contact centre, to how you empower your agents to be more knowledgeable, aware and agile and even going so far as supplementing human skills with the power of AI.

There is plenty that can be done, which is why building a clear-long term strategy is essential. Unfortunately, just 44% of organisation have such a customer experience strategy in place.

The lack of focus and a clear plan could inadvertently turn good intentions in isolation into complexity. To succeed in the long term, any customer experience innovation must be implemented as

part of a concerted enterprise-wide effort. Yet even today, over half of customer experience operations are managed in silos.

The digitalisation of your customer experience strategy will inevitably lead to the generation of volumes of data. Whether you find yourself drowning in this deluge, or sailing to success however will depend on how you utilise this data. This is perhaps why customer analytics and AI ranked as the top factors to reshape customer experience in the next five years.

Combined with AI and machine learning, it is now possible to analyse literally trillions of data combinations and scenarios to be proactive, improve performance, reduce costs, and increase productivity.

Even the most well-intentioned customer experience ambitions may be undermined by poor organisational alignment. Successful transformation is not achieved through technological means, it requires a cohesive approach that combines corporate culture and business strategy.

A few decades ago, companies could compete on the basis of the quality of their offerings and brand equity alone. But in today's global marketplace, consumers are spoilt for choice. Against this backdrop, customer experience is set to play an increasingly important role in brand differentiation and customer loyalty. It is time therefore for businesses to be reimagining their customer experience strategies for the digital age. ■



# Transcend your digital transformation journey with us

*No.1 Trusted Software System Integrator..!*



**AI & CHATBOTS**



**BLOCKCHAIN**



**CUSTOMER  
EXPERIENCE  
MANAGEMENT**



**BI & ANALYTICS**



**ROBOTIC  
PROCESS  
AUTOMATION**



MENA | APAC | AMERICAS

**ENABLING DIGITAL TRANSFORMATION**

**350+ Professional Team | 250+ Enterprise Clients | 30+ International Awards  
10+ Global Locations | 20+ Nationalities**

🌐 [finessedirect.com](https://finessedirect.com) | [f](https://www.facebook.com/finessedirect) [finessedirect](https://www.facebook.com/finessedirect) | ☎ +9714 3300144 | ✉ [info@finessedirect.com](mailto:info@finessedirect.com)

# HOW APM CAN HELP OIL AND GAS THROUGH GLOBAL CRASH

With APM and a digital twin, field professionals are able to make decisions much faster, aided by AI and mixed reality says Mohamad Awad at AVEVA.



MOHAMAD AWAD,  
Regional Vice President,  
Middle East, North Africa and  
Pakistan, AVEVA.

In the current low-price environment, asset utilisation, cost control and regulatory compliance have become the industry's top concerns as oil and gas companies struggle to maintain operating profits. With their high capital values, better utilisation rates can help improve efficiencies and reduce costs across the sector, whether in terms of upstream production, midstream throughput or downstream processing.

Asset performance management, APM has a major role to play in driving these improvements across the board. Gartner defines APM as a set of software applications and tools that improve the reliability and availability of physical assets that are essential to an enterprise's operations, including plants,

equipment and infrastructure.

With its ability to connect data and trigger actions via systems across the business, APM has been embraced by the manufacturing and maritime industries and is now being adopted by the energy sector, which has been rather late to the game.

With APM and a digital twin, however, field professionals are able to make decisions much faster, aided by artificial intelligence and virtual guidance. The proximity, location and role of each pump in the plant's operations are apparent upon consulting the digital twin, while colour-coding on a virtual 3D model indicates the relative health status of each pump in the system.

A drill-down to real-time operational data shows the underlying problems: one pump has a leak, while another shows excess vibration. The engineer can now make an informed decision, applying best practices and scheduling repairs to both pumps to maximise asset reliability.

APM 4.0 offers a significant upgrade to the way oil and gas companies conduct maintenance. Just as with Industry 4.0, it transforms businesses by using a set of cyber-physical systems including the industrial Internet of Things, cloud computing, big data analytics, predictive analytics leveraging artificial intelligence and machine learning, mobility and augmented and virtual reality.

However, APM 4.0's benefits only accrue when leveraged across an organisation's value chain.

These benefits can be broken down into three key areas of focus:

## VISUAL OPERATIONS AND MAINTENANCE

Operational data can be deployed into a navigable 3D model of the plant. Besides offering an intuitive way to distinguish critical and non-critical information, it allows engineers to make informed decisions on managing production assets quickly and effortlessly.

## AI-DRIVEN ANALYTICS AND PRESCRIPTION

Predictive analytics offer early warning identification and diagnosis of equipment problems, in order to reduce equipment failures and downtime, increase reliability and improve performance. Organisations can thus gain the highest return on critical assets.

## AUGMENTED GUIDANCE

Leveraging augmented reality provides asset owners and operating personnel with real-time, easy-to-follow visual operating procedures and key messages. This reduces human error and guides operators to appropriate equipment for performing specific tasks while existing hazards are flagged up.

From data collection to analysis and asset visualisation, APM 4.0 is more than just hype. The approach has yielded significant benefits for companies that have embraced it. ■



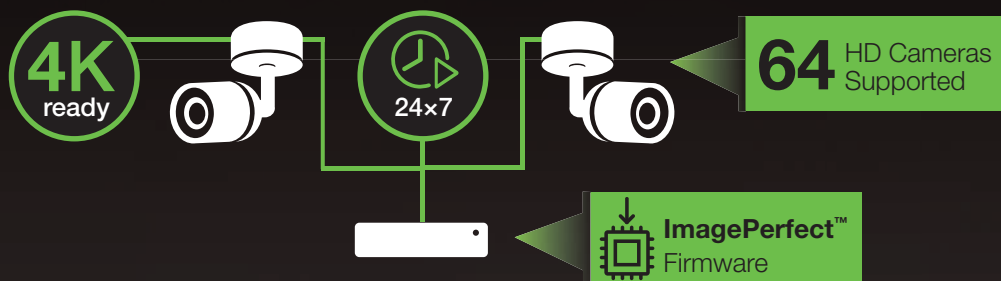


# Vigilance Built From Within

## CHOOSE THE RIGHT SURVEILLANCE STORAGE

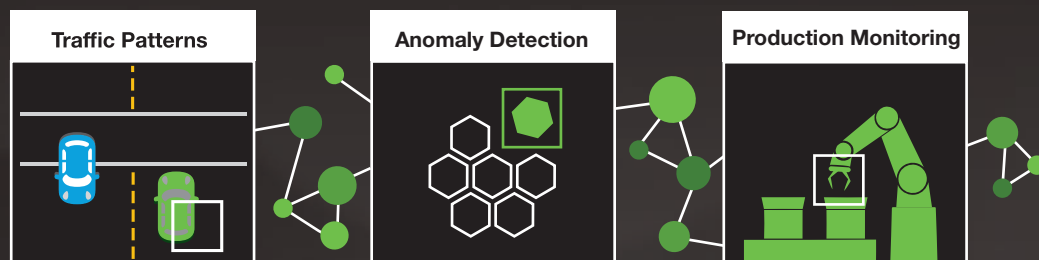
### ALWAYS-ON

SkyHawk® provides reliable 24x7 support for up to 64 HD cameras in DVR/NVR environments, and is 4K ready.



### SMART

SkyHawk AI enables surveillance solutions that can simultaneously support 64 HD cameras and 16 AI streams.



### CENTRALIZED STORAGE

Exos™ drives and system solutions are immensely scalable and fully optimized to store petabytes of data from 1000s of cameras.



# HOW MOBILE SERVICES ARE TRANSFORMING SALES MODELS

With an array of digital devices and applications, mobile workers are helping roll out of innovative new services writes Thierry Nicault at Salesforce.



THIERRY NICAULT,  
EVP for EBU MEACE,  
Salesforce.

## #1 MOBILE SERVICE IS BRANCHING OUT

Field service has typically played an outsized role in industries like manufacturing and telecommunications. While mobile workers might go by different titles, managing them well is increasingly important in other areas, like insurance and healthcare.

## #2 PREDICTIVE SERVICES FROM DEVICES

Where people once notified companies of issues with their products, connected machines are now increasingly reporting their own problems — and even predicting them.

In recent years, field service evolved from being reactive to preventative. Today, mobile workers can go one step further by being predictive — dispatching a technician before there is a problem thanks to real-time information about a particular unit.

## #3 AI IS TRANSFORMING THE FIELD

Overcoming the challenges inherent in field service requires aggregating large amounts of data and performing intelligent analysis. Machine learning can deliver insights from connected devices to drive predictive service.

Going forward, service organisations have an opportunity to use this approach to get the most out of data and improve their customers' service experience.

## #4 AUGMENTED REALITY SHOWS INFORMATION

Augmented reality is an emerging technology that is improving the experience for mobile workers. Field technicians can now point a mobile device at an asset and get real-time diagnostic information as well as service guidance on their screens. AR also enables the mobile worker to collaborate with remote colleagues while they share the same visual of the problem at hand.

## #5 LAST-MILE EXPERIENCE WILL GET BETTER

Solutions now exist for providing customers with real-time details about technician arrival time and enabling two-way communication between customers and service companies, so that mobile workers have a good understanding of the problem even before they arrive.

The mobile workforce is creating all-new revenue streams and empowering companies to build long-standing relationships with customers. Getting field service right makes companies more efficient, makes workers more effective on site, and improves customer experience.

Nearly three-quarters of service decision makers are making significant investments in mobile workers, including expanding teams and improving technology. Harnessing new tools — from AI to connected devices to augmented reality to custom mobile apps — is crucial as mobile service evolves for the future. ■

The Middle East's mobile workforce, those who travel to customers to provide on-site services and resolve problems, is growing both in numbers and stature. Around 80% of service decision makers say mobile workers increase revenue streams or create all new ones. Field service is a key part of the entire service lifecycle, and the mobile workers who carry it out are the face of the brand.

Here are five ways that mobile service is moving into the future:

**NUTANIX™**  
YOUR ENTERPRISE CLOUD



**FREEDOM  
TO**

*Cloud*

Public cloud benefits you want.  
Private cloud control you need.  
Embrace multi-cloud on  
your terms with Nutanix.

[nutanix.com/freedom](https://nutanix.com/freedom)



HP designs its cartridges with the environment in mind to help you make success sustainable.



**Reinvent Impact.**  
Original HP Toner



**Designed to work the first time, every time**

Rely on Original HP Cartridges to perform consistently.



**Quality prints you can take pride in**

Experience outstanding print quality when you use Original HP Cartridges.



**The environmental choice**

Cartridges designed with the planet in mind for easy recycling and less waste.



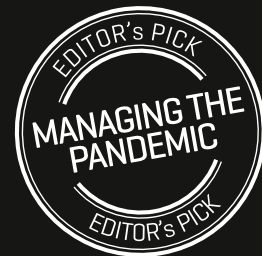
**MITSUMI  
Distribution**

Mitsumi Distribution FZCO  
Tel: +971 4 370 6058 | Email: [supportae@mitsumidistribution.com](mailto:supportae@mitsumidistribution.com)

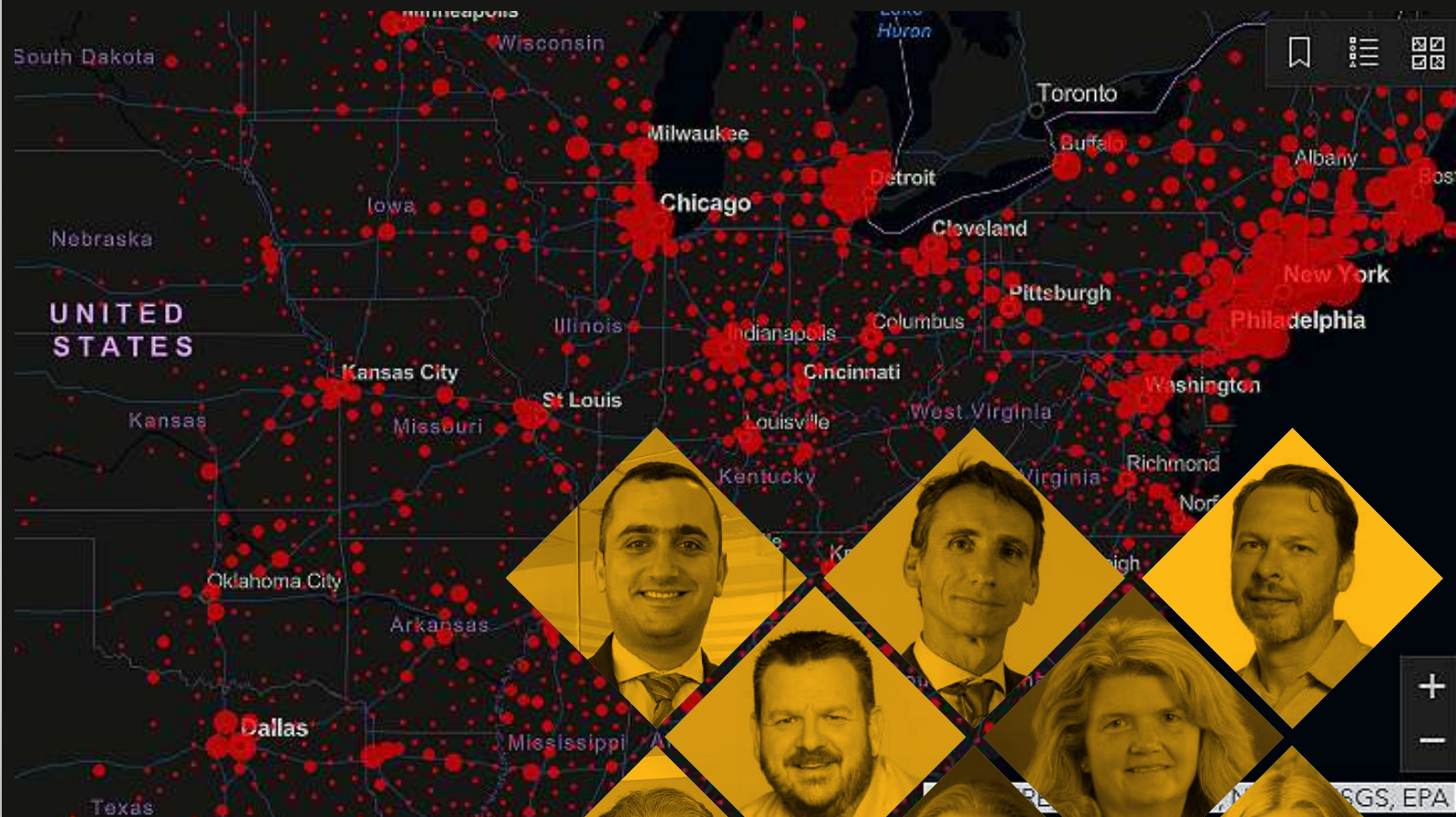


COVID-19

# HOW BUSINESS AND IT CAN MANAGE THE PANDEMIC



Top industry executives share their thoughts on how to cope across a number of areas from technology skills to executive leadership and human resources.



- CEO leadership
- Automating operations
- Crises management
- Learning from East
- Securing remote access
- Communicating with employees
- Remaining productive



(Left to right, and top to bottom)

Alain Kaddoum, General Manager, Swisslog Middle East; Alain Penel, Regional Vice President, Middle East, Fortinet; Brian Kropp, Distinguished Vice President Analyst, Gartner; Chris Pope, VP Innovation, ServiceNow; Christie Struckman, Vice President Analyst, Gartner; Dr Jassim Haji, President, Artificial Intelligence Society, Bahrain; Dr Mike Lloyd, CTO, RedSeal; Fiona Mullan, Chief People Officer, Ding; Karl Lankford, Director Solutions Engineering, BeyondTrust; Mike Hoff, CEO, MHC Consulting and Regional Group Manager, The Alpha Group; Steve Herz, Senior Director Analyst, Gartner; Tabrez Surve, Regional Director Gulf, Levant and Turkey, F5 Networks; Tim Wood, Partner and Head of Cyber Security, KPMG Lower Gulf; Tom De Waele, Middle East Managing Partner, Bain; Viresh Harduth, Vice President, Small Business, Sage Africa and Middle East.



ALAIN KADDOUM,  
General Manager, Swisslog  
Middle East.

## SWISSLOG

# Is this the right time for hypermarkets to automate

Automation will result in accelerating online shopping and create meaningful opportunities to take market share from competitors.

As the COVID-19 pandemic spreads across countries and with the government's mandate to practice social distancing, retailers have witnessed a rapid surge in e-grocery sales, a development which could cause a seismic impact on the operations of supermarket industry. With shoppers stuck in their homes, grocery apps have witnessed record downloads with a 218% increase during the outbreak as compared to last year.

According to a survey by analysts at Gordon Haskett Research Advisors, approximately 41% of consumers were buying groceries online for the first time. With the shift in consumer behavior in times of disaster, even a small labor shortage during this hour is likely to create gaps in the supply chain.

How can retailers meet the crush of demand in the wake of coronavirus without causing long waits, operational difficulties and overwhelming their delivery and pickup networks?

Integrating automation technology and by using robots to pick and pack online orders, supermarket chains can bet lower prices and faster fulfillment. This will in turn result in accelerating demand for online shopping and create meaningful opportunities to take market share from their competitors.

## TYPES OF SOLUTIONS

As is the case with other distribution operations, groceries have a range of automation solutions to choose from, depending on the selected e-fulfillment strategy, but as with

**41%**  
OF CONSUMERS  
WERE BUYING  
GROCERIES  
ONLINE FOR THE  
FIRST TIME.

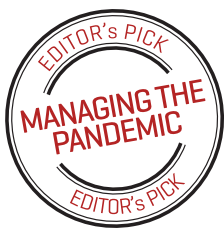
e-commerce automation in general, grocers should seek out solutions that are flexible, data-driven and robotic to ensure they will not become obsolete as the market changes and can leverage new technologies as they emerge.

Solutions such as Hub-and-Spoke arrangement enables automated fulfillment center to assemble orders for all non-perishable items and then bulk ship to the stores where they are topped off with perishable items allowing the fulfillment facility and automation system to be designed hand-in-hand and eliminates the space limitations imposed by integrating automation into existing retail locations.

Bolt-on Store Automation uses compact, robotic automation technologies, to create small fulfillment centers at the back of the store that automate current manual processes for non-perishable item picking while utilising store inventory to top off orders with perishable goods, which allows them to fill complete orders from one location, reducing transportation time and costs.

Micro-fulfillment centers create an opportunity to convert abandoned or underperforming retail outlets into micro-fulfillment centers that serve the same area as a traditional grocery store with automated fulfillment for curbside pickup or home delivery. This strategy sacrifices in-store shopping so is particularly attractive to pure-play e-grocers but creates the opportunity to optimise the environment by efficiently





BY USING ROBOTS TO PICK AND PACK ONLINE ORDERS, SUPERMARKET CHAINS CAN BET LOWER PRICES AND FASTER FULFILLMENT.

integrating automated and manual picking.

The Automated Grocery Store is a new type of grocery store that combines automated e-fulfillment with traditional shopping. Still an emerging concept, it integrates automation into the shopping environment allowing shoppers to have the flexibility to place their orders in advance or while in the store and can choose to pick their own perishable and specialty items or have the store complete their order for pickup or delivery.

E-Grocery Automation Technologies, as in other distribution operations, groceries have a range of automation solutions to choose from. The best solution will depend to a degree on the selected e-fulfillment strategy, but as with e-commerce automation in general, grocers should seek out solutions that are flexible, data-driven and robotic to ensure they won't become obsolete as the market changes and can leverage new technologies as they emerge.

Flexible solutions are those that can scale easily and adapt to change as it occurs. Data-driven solutions deliver the intelligence to better manage product flow and have the capability to incorporate machine learning that enables them to self-optimize. Robotic solutions are required to increase the productivity of scarce human resources and drive down fulfillment costs.

While there are multiple niche solutions being developed today to

capitalise on the growth in e-grocery fulfillment, such as the kiosk, the primary automation solutions being used or considered are either robot-assisted picking or goods-to-person automation systems.

## BENEFITS

Digitisation and automation will fundamentally shift the labor and staffing model for supermarkets. With smarter tools, supermarkets can introduce profound changes in the labor model which will ultimately deliver changes in the product assortment section and in delivering the new consumer experience.

Technology will be able to provide ways to cut costs, operate better and smarter and eliminate certain labor-intensive tasks entirely while also reducing back-office work.

Robotic order fulfillment requires little or no cognition making it an extremely valuable aspect to augment the work of humans. Autonomous robots can be used to efficiently execute any number of picking strategies, transport goods and materials from one point to another and aid replenishment activities.

By leveraging AI and machine learning to optimize pick routes in real-time, there is reduction in the overall time spent on order fulfillment and more time can be dedicated by humans to productive activities that impact customer satisfaction.

With technologies such as AR and VR available today, brands can reach out to consumers and assist them to virtually browse the store to explore, customise, and buy products. VR can help supermarkets produce an immersive experience that informs and entertain online users and keep in-store shoppers engaged.

Witnessing the true spirit of disruption, supermarkets can realise the game-changing power of automation by significantly driving lower retail costs. ■

THE PRIMARY AUTOMATION SOLUTIONS BEING CONSIDERED ARE EITHER ROBOT-ASSISTED PICKING OR GOODS-TO-PERSON AUTOMATION SYSTEMS.



ALAIN PENEL,  
Regional Vice President Middle  
East, Fortinet.

## FORTINET

# How to build your remote teleworker office

The time to switch to a remote office for teleworkers is almost immediate and good reason to have a secure, scalable plan in place.

**B**usiness continuity and disaster recovery plans are designed to address an organisation's need to quickly suspend normal on-site operations in the event of a power outage, illness, or natural disaster that may make it unsafe for employees to travel on-site. This plan needs to include the ability to quickly establish a secure, remote workforce.

Business continuity and disaster recovery programs require a teleworker strategy that can support a remote workforce with little or no notice, without compromising network security. Such a solution needs to enable secure access to critical resources while scaling to meet the demands of your entire

workforce on day one.

These business continuity solutions also need to be easily deployable and configurable, ideally with zero-touch provisioning, to enable a quick transition to a remote workforce while maintaining full security visibility and control regardless of their deployment environment. This ensures that your organisation can quickly respond to critical events with minimal impact on productivity and profitability.

Transitioning administrative staff, technical support teams, HR, marketing departments, and other workers who traditionally work from a physical office – along with access to their data and networked resources – to alternate work sites

BUSINESS  
CONTINUITY  
REQUIRES A  
TELEWORKER  
STRATEGY THAT  
CAN SUPPORT  
A REMOTE  
WORKFORCE WITH  
LITTLE OR NO  
NOTICE.

can be a daunting task.

In addition to networking considerations, organisations should be aware that cybercriminals are prepared to exploit the weaknesses and security gaps that often arise during such events. Unprepared users and unsecured systems can quickly become conduits for malware and malicious activity. Since time is of the essence, security must be an integral element of any teleworker strategy.

Here is how to securely move traditional on-site workers to remote locations.

## #1 GENERAL TELEWORKER REQUIREMENTS

To start, every teleworker requires access to email, internet, teleconferencing, limited file sharing, and function-specific capabilities such as finance, HR, from their remote work site. They also require access to Software-as-a-Service SaaS applications in the cloud, such as Microsoft Office 365.

## VPN AND ENDPOINT SECURITY

Make sure all users have a laptop loaded with all of the essential applications they need to do their job. In addition, that laptop needs to include a pre-configured client to provide VPN connectivity to corporate headquarters.



THE HEADEND SHOULD SCALE TO MEET SUDDEN VOLUME OF TELEWORKERS NEEDING REMOTE ACCESS TO NETWORK RESOURCES.

### MULTIFACTOR AUTHENTICATION

Multifactor authentication helps prevent cybercriminals from using stolen passwords to access networked resources. To enable more secure access, every user needs to also be provided with a secure authentication token. These tokens can be a physical device such as a key fob, or software-based like a phone app, and are used when making a VPN connection or logging into the network to provide an additional layer of identity validation.

### #2 TELEWORKERS ADVANCED REQUIREMENTS

Some of your teleworkers need advanced access to network resources to do their jobs. Systems administrators, support technicians, emergency personnel, and executive management teams often need to access and process extremely sensitive and confidential information or operate in multiple, parallel IT environments.

### PERSISTENT CONNECTIVITY

Pre-configured wireless access points enable secure connectivity from a user's remote location to the corporate network through a reliable, secure tunnel. For a more secure connection, a wireless access point can be combined with a desktop-based next-generation firewall to enable persistent connections, advanced admission control, and a full spectrum of advanced security services, including Data Loss Prevention.

SINCE TIME IS OF THE ESSENCE, SECURITY MUST BE AN INTEGRAL ELEMENT OF ANY TELEWORKER STRATEGY.

### SECURE TELEPHONY

These users also require a telephony solution that supports voice over IP to ensure secure communications. Both physical and soft client models are available that enable users to make or receive calls, access voicemail, check call history, and search the organisation's directory.

### #3 SECURE SCALABLE HEADEND

The other half of the equation is ensuring that the headend can scale to meet the sudden volume of teleworkers needing remote access to network resources while ensuring that network access is appropriately secured.

### USER AND DEVICE AUTHENTICATION

A central authentication service connected to the network's active directory, LDAP, and Radius enables remote workers to securely connect to network services at scale. This solution should also support single sign-on services, certificate management, and guest management.

### ADVANCED PERIMETER SECURITY

An NGFW solution needs to securely terminate VPN connections, provide advanced threat protection – including the analysis of malware and other suspicious content within a sandboxed environment before it reaches its destination, and high-performance inspection of clear-text and encrypted traffic to eliminate malware and malicious traffic.

Scalability for this function is especially critical, as the inspection of encrypted data is extremely processor-intensive. Without advanced security processors designed to inspect high volumes of encrypted traffic, NGFW solutions can quickly become a bottleneck that can impact teleworker productivity. ■





CHRIS POPE,  
VP Innovation, ServiceNow.

## SERVICENOW

# Why this pandemic may change the fabric of society

Remote working is bringing the home together, allowing workers to work at flexi time, challenging employers to be productive, with questions about future.

**W**e are living in unprecedented times — cities, regions and countries across the globe are locked-down in an attempt to flatten the curve and contain the spread of the coronavirus.

Quite suddenly, the vast majority of us — unless we rank as key workers in medicine, food supply or in other core utility or public service roles — have had to get used to working from home. Aside from the web-connectivity challenge that this presents for some people, it also gives us a new set of challenges in terms of how we work.

For many office workers, the set of tasks they are involved in can be encapsulated in a workflow of

methods and responsibilities that everybody almost instinctively understands, possibly due to our human proximity. But now we have taken that proximity factor away, so how are we going to connect, collaborate and cooperate effectively in the weeks ahead?

There are many questions to be asked here. Will working from home become the new accepted norm? When this situation is over and we can all officially return to the office, will those roles and functions that were previously thought of as requiring an office presence be changed forever? Can the time spent by employees now be more definitively and productively split

WILL THOSE ROLES AND FUNCTIONS THAT WERE PREVIOUSLY THOUGHT OF AS REQUIRING AN OFFICE PRESENCE BE CHANGED FOREVER?

between the office and home?

## WILL THE WAY WE WORK BE CHANGED FOREVER BY COVID-19?

When working remotely, it goes without saying that technology becomes the heart of every interaction. But online videoconferencing anxieties aside, we are all going to have to make sure that we understand the value of communication a lot better.

For some, this whole shift is going to be massive. We may find that older school managers have become so dependent on the structure of physical office meetings that the leap is almost too much. We know that some people feel that they have to be in the room with other people in order to get things done. They don't have the soft skills needed to express themselves effectively over video and voice calls.

Younger workers among the millennials and open-minded Generation X workers will have more of these skills, but for Generation Z this kind of thing comes instinctively. Born in and of the web-cloud era, Gen-Z is happy with a webcam pointed at them and will naturally feel less of a shift here.

Although I am painting a largely positive picture here for individuals, let us remember that employees are just one of the three corporate elements in the central work equation. Employers can find



## KEY TAKEAWAYS

- Will working from home become the new accepted norm?
- When working remotely, technology becomes heart of every interaction.
- We are all going to make sure that we understand the value of communication a lot better.
- Employers can find positives from remote work, equally they may find tracking tasks and performance became harder.

## CAN THE TIME SPENT BY EMPLOYEES BE MORE PRODUCTIVELY SPLIT BETWEEN THE OFFICE AND HOME?

positives from remote work too, but equally they may find that tracking some specific tasks and managing performance become harder.

Thirdly — and always crucially — we have the customer. Aspects of goods and services provision will differ by industry, and some will change for the better, while some may be less positive, it is still too early to say at this stage.

Very often it may be the core family issues that people find most challenging. If you have kids, then the next few weeks will require you to navigate some uncharted waters. How do you manage to ensure they keep up with their distance learning assignments, how do you keep them entertained, what rooms can they go into, when is it appropriate for

them to interrupt you if you are busy working? We will no doubt see countless memes and parodies of hilarious and unfortunate situations.

On the flipside, maybe now the kids, and significant others, will start to understand what it is we do all day when going to work. Our family is now seeing aspects of work life that they will not get to experience until they themselves are in the thick of it.

There is a positive to be gained here. As our families get exposed to our work methods and hear us on telephone calls and web-based video platforms, we gain a new and fresh feedback loop that may have never previously existed.

When your partner says, Gosh, do you really talk to people like that? you may stand back and assess the way you empathise with difficult work issues. Equally of course, your partner may say, Really? You let them get away with doing that? It works both ways, obviously.

Taking stock of the thought process presented here then — which I would like to suggest has been cathartic in and of itself — we can perhaps look to one very significant change that COVID-19 might drive. With so many people stopping their daily commute, could the impact upon climate change and pollution be a downstream change that we are able to harness for lasting positive impact?

If we can be working effectively in the situation that has been handed to us, we may even be able to drive some positive self-reflection benefits out of the predicament. If we can increase the time spent on activities that fuel our creative thought, then perhaps we can help create world solutions to ensure that this dreadful pandemic is the last of its kind. ■



CHRISTIE STRUCKMAN,  
Vice President Analyst, Gartner.

THE SKILLS  
NEEDED TO  
PREDICT ABOUT  
ADVERSE EVENTS  
ARE DIFFERENT  
FROM THE SKILLS  
NEEDED IN A  
MOMENT OF  
CRISIS.

## GARTNER

# Why the pandemic needs two teams: Tiger and SWAT

The Tiger and SWAT teams have different members with strengths and capabilities and need to be activated based on the crises an organisation faces.

When an oxygen tank exploded during the Apollo 13 mission to land on the moon, NASA quickly formed what it later called a Tiger team — a small group of specialists with different areas of expertise to investigate the issue and figure out how to get the four astronauts home. Their work guided the actions of the flight crew to turn a major crisis into a shining moment in the history of the US space programme.

Tiger teams fulfill a crucial risk management function, but they are not enough to fully protect organisations from experiencing negative financial, operational or reputational outcomes due to adverse events, such as a natural disaster, major security hack or global pandemic.

That is because the skills needed to predict and educate about adverse events are different from the skills

needed in a moment of crisis. Data ethics dilemmas like these are becoming more urgent as business leaders look to data and analytics programs to produce business value.

Anticipating adverse events is a qualitatively different task than responding to adverse impacts when they occur. Many organisations use the same individuals in both scenarios, but not all team members are best suited for both situations.

Instead of one team to fulfill all aspects of adverse event prediction and response, there should be two: A Tiger team to anticipate and educate, and a SWAT team — derived from the special weapons and tactics units from military and police forces — to handle on-the-ground actions in crisis situations.

Different teams lead during different phases. For example, Tiger teams lead the process of identifying possible adverse events

and educating the organisation, prioritising which events to plan for and documenting the response. SWAT teams, for their part, lead the event response.

The two teams collaborate on planning. The Tiger team takes a first pass to identify procedures, and the SWAT team assesses their feasibility and recommends adjustments. And both team's participate in evaluating the results after the fact and looking for ways to improve.

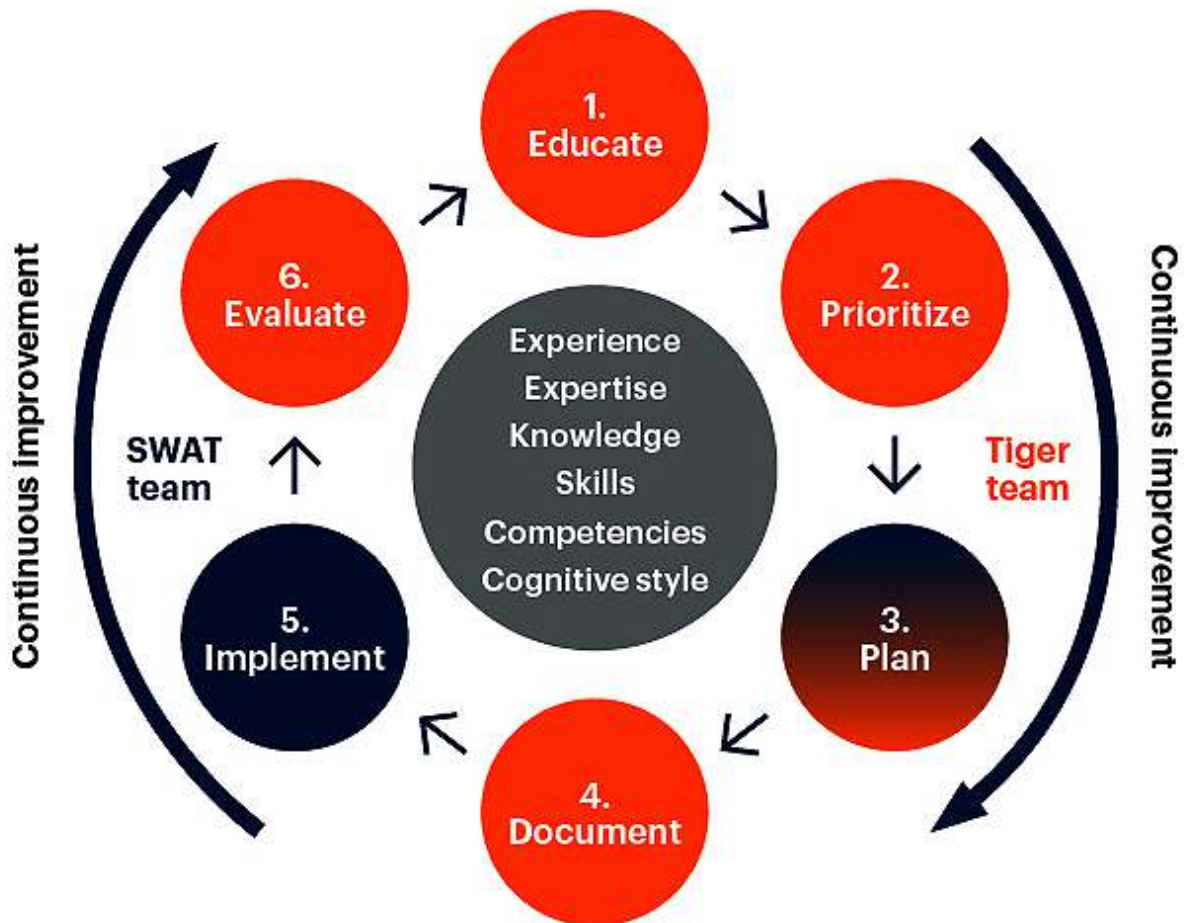
Both Tiger and SWAT teams need people with concrete skills and competencies. Less concrete are the various ways of thinking — also known as cognitive styles — that are critical to meeting the needs of a Tiger or a SWAT team.

For example, people who tend to wait until they have all the relevant information before making a decision are well-suited to the methodical, research-driven work of a Tiger team. People who are willing to act on limited knowledge, on the other hand, are essential SWAT team members. The former has a low tolerance for ambiguity; the latter, high.

Leaders can assess five cognitive dimensions in their Tiger and SWAT team candidates to determine their cognitive style and create balanced teams. For each dimension, a person's style falls on a continuum between two poles. The dimensions and their poles are:



## Steps of planning and responding to adverse events with team ownership



*Skills of Tiger and SWAT team members are different.*

### PROBLEM SOLVING, BETTER VS DIFFERENT

Does the person approach problems by looking to improve on what exists better, or by reframing the problem altogether different?

### PERSPECTIVE, PART VS WHOLE

Does the person break an issue down into component parts and examine each one independently part perspective, also known as analytical perspective? Or does the person view events in terms of the entire system of which they are part and draw intuitive connections and associations whole perspective, also known as intuitive perspective?

### TOLERANCE FOR AMBIGUITY, HIGH VS LOW

Does the person gather as much information as they can before drawing conclusions low tolerance, or are they willing to make a faster call based on partial insight high tolerance?

### FOCUS, PEOPLE VS TASK

Does the person thrive on collaborating with others people focused, or on completing work and seeing results task focused?

### FOCUS, INTERNAL VS EXTERNAL

Does the person think through solutions alone and then present them to others for feedback internal,

or does the person seek out group brainstorming and interaction to articulate and hone ideas external?

As with tolerance for ambiguity, the work of Tiger and SWAT teams in many cases aligns with certain cognitive styles. People who automatically question and reframe problems are excellent Tiger team members, skilled at identifying possible adverse events. The middle of a crisis is not the time to completely rethink a plan, however, so improvers make better SWAT members.

Yet staffing teams is not a binary exercise of placing people with one style on the Tiger team and another on the SWAT team. The most effective teams have a balance of cognitive styles, says Struckman. ■



DR JASSIM HAJI,  
President, Artificial Intelligence Society, Bahrain.

ARTIFICIAL  
INTELLIGENCE  
CAN ASSIST AND  
INFORM FIRST  
RESPONDERS,  
AS WELL AS  
COMMUNITIES  
AFFECTED.

## ARTIFICIAL INTELLIGENCE SOCIETY, BAHRAIN

# First responders not leveraging AI to control pandemic

With limited data available about COVID-19, artificial intelligence can be used to speed up vaccine development and predict populations to be affected.

As the global epidemic of the COVID-19 plagues the world, we are in danger of not learning from many of our past disasters and to really utilise and re-emphasize the many fields where artificial intelligence and machine learning are beginning to make an impact. Implemented in the right way, artificial intelligence can assist and inform first responders, as well as communities affected, artificial intelligence can be leveraged to save lives in these turbulent times.

Artificial intelligence can support with the enrichment of optimisation strategies, which are greatly needed as the turmoil around the world reaches epidemic proportions.

Research with the use of machine learning to evaluate and optimise strategies for social distancing between communities, cities, and countries to control the spread of epidemics, detecting pattern, forecasting and prediction.

Artificial intelligence can pinpoint patterns in data and make predictions, and the hope is that these tools can identify drug prospects to test on humans within months. As coronaviruses such as COVID-19 mutate, a drug candidate will have to be effective against a broad spectrum of possible forms. Work is now underway worldwide, to use artificial intelligence in pursuit of a vaccine.

Artificial intelligence will without a doubt, speed up vaccine development, the technologies rely on large quantities of accurate training data. A new, highly infectious disease for which there is limited data poses challenges for even the most sophisticated artificial intelligence techniques.

Artificial intelligence can also be used to identify and locate commonalities within localised outbreaks of the virus, or with micro-scale adverse health events that are out of the ordinary. The insights from these events can help answer many of the unknowns about the nature of the virus.

The primary strength is the way it increases our capacity to predict, and therefore plan for, events and circumstances. Considering that one of the most important ways to save lives in disasters is to have early warning, there is a lot of good this technology can do.

The potential of artificial intelligence is not just in predicting that a disaster will happen but in forecasting where it will have the most impact, which systems are likely to fail, and what communities are in the most danger. This data can be used to improve decision-making about the issuing of building permits and insurance.

Artificial intelligence could prove invaluable to tracking and reporting the efforts as well as providing critique in the maintenance of



DATA CAN BE USED TO IMPROVE  
DECISION-MAKING ABOUT ISSUING OF  
BUILDING PERMITS AND INSURANCE.

### KEY TAKEAWAYS

- Artificial intelligence can support enrichment of optimisation strategies, now greatly needed.
- Artificial intelligence will without a doubt, speed up vaccine development,
- The potential is not just in predicting a disaster will happen but in forecasting where it will have most impact.

critical equipment and systems.

Over the years where a natural disaster has occurred, people on the frontline have often turned to social media and ad-hoc volunteer groups in addition to, and sometimes instead of, relying on aid from the government or traditional charitable organisations. Local and wider communities have proven that they're capable of coming together in the face of a disaster when aid doesn't come quick enough.

Nearly all social media platforms rely on machine learning algorithms for advertising, but additional artificial intelligence functionality could be of great assistance during disasters for both people and first responders keep up to date and organised.

Deployed in the right way, existing timeline algorithms could be used to deliver and distribute information where it is most needed. Or, artificial intelligence could be used to scrape information from millions of social media posts and clue rescue workers

in to the hardest hit areas and people in the most need.

With unmanned robots being used to great effect in every aspect of disaster response, it is now time to make the best use of robots and our ability to gather more data, and data collection and analysis techniques must keep up. As big data grows, we need to ensure the capability to draw conclusions on it, to increase response time.

Autonomous machines and artificial intelligence algorithms, when combined, act as a significant force multiplier in our ability to protect people and property in the face of disaster.

Recently, a robot helped doctors treat an American man diagnosed with the novel coronavirus. The robot, which carried a stethoscope, helped the patient communicate with medical staff while limiting their own exposure to the illness.

We see artificial intelligence is currently being leveraged in diagnosing the illness. Several hospitals in China are using artificial intelligence-based software to scan through CT images of patients' lungs to look for signs of COVID-19, the infection caused by the novel coronavirus.

The coronavirus epidemic has inspired several drug companies to use artificial intelligence-powered drug discovery platforms to search for possible treatments. That process can involve using artificial intelligence to find entirely new molecules that might be capable of treating the pneumonia-like illness, or mining through databases of already-approved drugs, that might also work against COVID-19.

Importantly, while artificial intelligence drug discovery might speed up the process of finding candidates for new drugs and treatments, there's no guarantee that the technology will come up with anything better than what human scientists could find on their own. ■





DR MIKE LLOYD,  
CTO RedSeal.

## REDSEAL

# What does COVID-19 and cybersecurity have common

The propagation of COVID-19 is dependent on negligence and oversight of human hygiene; same way threat actors work on negligence of security practices.

In my travels, I have met cybersecurity professionals from many different backgrounds. That is not so surprising – it is a relatively new profession only recently taught in universities, and it takes on the order of ten years of on-the-job training to become an expert. Most seasoned cybersecurity veterans came from some other discipline.

I moved into cybersecurity from epidemiology, studying how disease spreads. There are some surprising and interesting parallels between cybersecurity and epidemiology – starting from the point that most

people really do not want to talk to you about the icky stuff that you spend your time on until they face a real crisis and suddenly demand answers!

Coronavirus is a good example of crisis-driven attention to a neglected area. Normally, we fly around visiting busy places, shaking hands, and generally behaving as if the outside world was not out to get us. But publicity around Coronavirus has abruptly caused people to pay attention, buying disinfectant, stocking groceries, and above all, washing their hands.

ATTACKERS  
THRIVE IN PLACES  
WE CANNOT SEE;  
THE SAME WAY  
MICROBES HANG  
ON WHEREVER WE  
DO NOT SPRAY.

This spike and eventual dip in awareness is familiar to cybersecurity professionals. Our recommendations and policies – do not click on unknown links, for example – are as hard for most people to live with every day as is the epidemiologist's advice to wash your hands and keep them from your face.

Heightened awareness of the danger from microbes will change behavior for a while. But you do not have to be clairvoyant to predict a future where people will gradually go back to attending sports events, getting on cruise ships, and in the process, increasing their attack surface to microbes. We are not surprised when our security awareness training only seems to bring benefits for a while, so we keep repeating it.

Of all the advice coming out of epidemiologists around Coronavirus, the most frequently repeated point is the simplest: wash your hands. Do it a lot. Do it well. Use soap. This is perhaps not what most people were expecting.

The mundane nature of the best counter to Covid-19 – just wash your hands – is a reminder that basics are still our most important line of defense. Microbes have to obey the laws of biology – they cannot just teleport from person to person, they need a way to get between them,



THE CURRENT STRAIN OF CORONAVIRUS MAY BE NEW, BUT STILL EXPLOITS SAME ATTACK VECTORS THAT HUMANS HAVE HAD SINCE PREVIOUS TIMES.

### KEY TAKEAWAYS

- Modern humans have ability to stop these diseases, but they are only effective if we actually use them.
- Being prepared takes time and attention, the catch is that attention has become our most precious commodity.
- I believe the Coronavirus shock will have a positive legacy once it has peaked, it brought people thinking about washing hands.

and at least for airborne pathogens, it creates a chain that we can break with something far less costly than a super drug.

In the security business, we are also prone to falling for the promise of a super drug – my newfangled AI system is so advanced, it will figure out the attacker's intentions before they have even realized they are coming after you, and so on. It sounds great, except it is neither practical, nor your best line of defense even if it worked.

Your best line of defense is boring old security fundamentals – just the way that handwashing can combat a scary new contagion. It starts with knowing what you have, then looking at how it is configured, and finally looking at how all the pieces interact. Epidemiologists follow the same basics – what is the susceptible group, how strong are their defenses,

and what is the attack pathway?

Every company I visit has some kind of inventory program in place, and not a single security team I have met believes it is complete and reliable. Sadly, in my line of work, I end up proving that they are right – it is not just professional paranoia, inventories really are riddled with gaps and faulty data.

Is it any wonder, then, that breaches continue to succeed? Attackers thrive in the places we cannot see, in much the same way that microbes hang on wherever we do not spray the disinfectant.

The current strain of Coronavirus may be new, but it still exploits the same attack vectors that humans have had since prehistoric times – make one victim cough and depend on poor hygiene to infect the next person. Modern humans have the ability to stop these diseases, because we have hot water and soap, but they are only effective if we actually use them.

Between my earlier training as an epidemiologist, and my current work on network security, I suppose I should be a pessimist – a dysfunctional germophobe with a disdain for all things networked. But honestly, I have come out more as an optimist albeit with a good sense of how grateful we should be, given the fragile nature of the world we live in.

I believe the Coronavirus shock will have a positive legacy once it has peaked, if only in the mindset it brought to get people thinking about washing their hands.

And as we know from security awareness training, most people can have their online behavior changed, at least for a while. But we still need to be prepared – map out your stuff, check it for basic violations, then move on to thinking about lateral movement, the way that epidemiologists try to predict where Coronavirus is going next. And above all, people, wash your hands. ■



FIONA MULLAN,  
Chief People Officer, Ding.

## DING

# Pandemic driven work from home remains untested

The results of moving legions of workers away from offices and streets, are still untested and the pandemic represents the largest such experiment.

As the presence of the global pandemic is felt across the world – governments are scrambling to try to ready their citizens for its impact, while, companies are trying to find a new normal in order to maintain operations, retain employment and create a level of social connection between employees even more important than ever.

What we have seen in recent weeks is nothing short of a revolution in terms of how people, teams and companies are adapting to remote working.

Across every size of business,

people are reimagining their notion of the workplace. The role of technology in the time of COVID-19 is enabling us to help companies to survive and for the lucky few, perhaps even help them to thrive.

Either way, it is causing companies to explore new ways of delivering products and services to customers, but is also forcing organisations to strategise, design, execute and collaborate in ways never seen before so quickly.

High speed 4G and broadband connectivity, cloud-based file sharing, higher quality video conferencing as well as social and

LEADERS  
ARE NOW  
EMBARKING ON  
A PRODUCTIVITY  
AND SOCIAL  
EXPERIMENT  
THAT HAS THE  
POTENTIAL TO  
DRIVE A SEISMIC  
SHIFT.

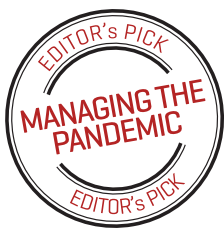
collaboration tools, think Workplace, Slack, Teams to name a few, provide the infrastructure which is enabling us to get our jobs done remotely. In fact, it has enabled us to move our entire companies to a virtual environment within days.

As cities and entire countries enforce social distancing and curfews, millions of people have been told to work from home. Work indeed has new meaning for many as it provides refreshed purpose when we are looking at the fundamentals of our lives when many of the more discretionary activities in our lives are not possible for the moment – socialising, shopping, entertainment outside the home.

Through necessity, leaders are now embarking on a productivity and indeed a social experiment that has the potential to drive a seismic shift in how we think about work and working from home. The big multinationals and the SME's alike have sent hundreds of thousands of office workers home with the expectation that work can be done effectively. It may be necessary but is it as productive and enjoyable?

YouGov Omnibus research in 2019 shows that 20% of HR managers believe that staff work to a slightly higher standard at home than in the office. More notable is the fact that only 7% of HR decision makers





HUNDREDS OF THOUSANDS OF OFFICE WORKERS HAVE BEEN SENT HOME WITH EXPECTATION THAT WORK CAN BE DONE EFFECTIVELY.

### KEY TAKEAWAYS

- Only 7% of HR decision makers believe employees work to a much higher standard at home.
- YouGov Omnibus research shows 20% HR managers believe staff work to a slightly higher standard at home than in the office.
- 66% of all employment on the African continent is informal.
- In Ghana and Kenya respectively, the informal sector accounted for 90% and 84% of total employment in 2018.

believe employees work to a much higher standard.

Other studies show that, with the right technological infrastructure, working from home can be more productive. There are many variables at play here in terms of the nature of certain types of work, teams and individual preferences of course.

One thing is clear, this moment of COVID-19 will provide a way to assess the effectiveness on a never before seen global scale, as we move at speed to this new and scaled remote workforce. The results have the potential to change our view on the subject forever.

Ann Francke OBE, the Head of the Chartered Management Institute believes that COVID-19 will enforce a paradigm shift in productivity and workplace attitudes, having the potential to change the workplace forever. She urges that, everyone will need to embrace a different sort of workplace behaviour.

This could not be possible without incredible advances in technology. Those technologies are, however, often an expensive part of a digital transformation that big companies are moving through. In poorer parts of the world, it is a different story.

As COVID-19 takes hold in sub-Saharan Africa, technology will also come to the rescue of businesses and their employees – but it is a region where a significant majority of people work in the informal sector, in jobs such as construction work, tailoring or vehicle repair work.

Contract-based cloud services or video conferencing hardware may not be widely accessible due to infrastructure or affordability reasons. The International Labour Organisation estimated that 66% of all employment on the African continent is informal and in Ghana and Kenya respectively, the informal sector accounted for 90% and 83.6% of total employment in 2018.

Whilst many companies in the developed economies turn to cloud and HD video conferences, millions of people in the developing world are turning to their mobile phone to keep in contact with customers and employees, and keep their businesses running.

For office workers in the West, time will tell if there are productivity gains or indeed social benefits. We do know that businesses will adapt to survive. Wherever we are in the world, affordable technology – and access to it – is a game-changer to achievement.

For now, the battle is underway to eradicate this dreadful virus from our communities. But technology is providing us with some hope of keeping our economies and businesses afloat and our communities socially connected if physically isolated. ■



KARL LANKFORD,  
Director Solutions Engineering,  
BeyondTrust.

## BEYONDTRUST

# Why working from home is an enormous stress test

Except for small sliver of organisations that have adopted telecommuting earlier, most organizations do not have security expertise to work remotely.

Quite suddenly, hundreds, if not thousands, of organisations in areas around the globe affected by COVID-19 coronavirus are suspending office work and mandating that their employees work remotely. While some companies may have solid disaster recovery plans in place, few are likely equipped for a large-scale shift to telecommuting that could extend well beyond weeks.

It is an enormous, unplanned stress test for remote access. This situation has created an immense, rapid demand for secure remote access tools due to the need to protect employee health and network security, as well as ensuring business

continuity.

Except for a small sliver of companies that are either 100% telecommuting or have at least embraced remote work options for a significant part of their workforce, most organisations lack the infrastructure to effectively and securely go remote en masse. This model shift strains the networks, applications, and services structure.

Then, there are the cybersecurity implications. Do these newly telecommuting employees have the right remote tools for remote work, or are they compelled to quickly stitch together shadow IT applications to maintain productivity? Do they have work-

DO THESE NEWLY  
TELECOMMUTING  
EMPLOYEES  
HAVE THE RIGHT  
REMOTE TOOLS  
FOR REMOTE  
WORK.

provisioned laptops, or are they forced to use personal laptops, devices for work-related activities?

Shadow IT has long been a mixed blessing, but the move en masse to so many applications and devices outside IT control creates considerable risk. In most organisations, personal laptops probably lack the security software safeguards and policies that protect hardened, company-provisioned devices.

Many employees are now forced to use their own devices with corporate issued VPN or other remote access technology. This situation poses a threat when they are connected to the corporate network.

Of course, as organisations and localities are grappling with how to maintain normalcy while taking precautions, cyber threat actors have not skipped a beat in exploiting the crisis. The World Health Organisation WHO has issued multiple reports of hackers leveraging exploits as part of coronavirus-related scams.

Sometimes, they pose as business partners or public institutions in an effort to phish users when they open messages infected with malware.

How can organisations and their workforces remain as productive as possible during this crisis without creating unacceptable security risks in the process?

Unprepared organisations forced to go remote may feel compelled to



IN MOST ORGANISATIONS, PERSONAL LAPTOPS LACK SECURITY SAFEGUARDS THAT PROTECT HARDENED, COMPANY-PROVISIONED DEVICES.

broadly loosen security policies to enable productivity. Obviously, this is not an ideal situation, particular for global enterprises. Loosening the standards for just one user or device could jeopardise data privacy and security across the entire global network.

One of the most pressing of these security issues involves the technology to enable telework in the first place. If organisations are unprepared to roll-out a secure remote access technology, employees, including even IT staff, may feel forced to download free tools to get their work done.

However, these tools will almost invariably have a combination of monitoring, authentication, and security deficiencies that can put the entire organisation at-risk of a breach, as well as failed compliance audits.

In haste, many organisations may have remote workers and vendors VPN into the corporate network, but VPNs are not ideal. First, they lack the scalability needed to accommodate a surge of remote workers. And, perhaps more concerning, is that the VPN technology, while providing some protections such as against man-in-the-middle attacks, itself suffers many security shortcomings.

VPN security concerns are

particular heightened when they are used for privileged users and third-party vendors. For instance, VPNs typically lack granular permission setting options, firewall settings are weakened, visibility and reporting options are poor, and the principle of least privilege may be unattainable.

If, in the short-term, BYOD is the only feasible option to allow remote work, it is advisable that you ensure your remote access technology absolutely does not use a VPN, does not use any local clients, does not perform any protocol tunneling, and renders all remote sessions in a browser.

While vendor access has long been a weak security link, typical office staff are now essentially forced into working as pseudo-vendors, coming from off-network devices and networks, and potentially BYOD. Of course, true vendor access itself may be expected to increase in the coming months as organisations turn to IT service providers and other third-parties to help them manage the growing IT workload and new challenges in the face of the coronavirus.

And, it is particularly important that the vendor access is not as simple as on or off, it needs to be tightly controlled and audited.

Here's a challenge exercise to evaluate your current remote or vendor access system and policies:

- Challenge 1 – Can you set granular access?
- Challenge 2 – Do you have one single path for approvals and notifications?
- Challenge 3 – Do you know when your network is being accessed, by whom, and for what purpose?
- Challenge 4 – Do you securely manage privileged credentials for employees and vendors that are used for privileged remote access?
- Challenge 5 – Are you able to capture detailed session data for all remote access sessions? ■

## KEY TAKEAWAYS

- Are they compelled to stitch together shadow IT applications to maintain productivity?
- Do they have work-provisioned laptops, or are they forced to use personal laptops, devices for work-related activities?
- The move en masse to so many applications and devices outside IT control creates considerable risk.





STEVE HERZ,  
Senior Director Analyst,  
Gartner.

## GARTNER

# Managing pandemic is career experience in sales

The benefit of making the correct choices by the sales organisation at this time will help the business pull through post the pandemic.

**F**or chief sales officers CSOs, risk management related to the COVID-19 pandemic extends beyond the sales organisation to risks originating in the customer ecosystem and the supply chain. The planning and execution decisions CSOs make today will help the sales organisation to weather the crisis as it unfolds — and position sales well for the recovery phase when it comes.

The COVID-19 outbreak is the latest reminder that sales organisations have unique challenges that arise during large-scale disruptions to business. Handled appropriately, such crises, whether health pandemics, natural disasters or other uncontrollable acts, represent tremendous downside risks, but good decisions made now can position the organisation to thrive in the long term.

Gartner recommends that CSOs and sales leaders focus their planning on three key objectives to address the risks associated with the coronavirus outbreak.

### PREPARE FOR RISKS

Internally, communicate the importance of keeping the sales organisation safe, as sellers need to know the company prioritises their health over short-term sales outcomes. Back up this commitment to seller well-being with a willingness to proactively manage sales compensation plans and quotas as a result of coronavirus-related disruptions to the business.

Global disease pandemics like COVID-19 threaten more than internal commercial activities, so sales leaders must scope their planning efforts for such disruptions beyond the sales organisation.

PREPARE FOR  
SOFTENING  
OF DEMAND,  
LONGER SALES  
CYCLES, ORDER  
CANCELLATIONS.

Prepare for softening of demand and longer sales cycles, and plan for inevitable order cancellations. Equally important in many industries are the risks to the supply chain and available inventory, as many sales are not considered complete until the product or service is delivered to the customer.

### PREPARE FOR EXECUTION

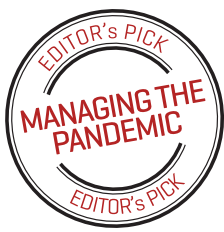
As the health crisis grows and business slows, create and evolve rules for response governance and efficient decision making that are relevant to the unique challenges the sales organisation will face.

During a crisis, consistent messaging, transparency and communication discipline are indispensable to help instill confidence and reinforce new governance processes. Also create metrics to track sales activities, identify new issues and track adherence to emergency policies and priorities.

### STRENGTHEN THE POSITION

Choices made now can strengthen the sales force's competitive position when the crisis subsides. The top priority is to invest in customer relationships and channel partnerships, so sales leaders should look to increase and reward loyalty from key stakeholders. In addition, they must find ways to help equip key customers, channel partners and suppliers to succeed during and immediately after the crisis.

Act deliberately to strengthen the sales culture and protect team morale during the disruption. How CSOs lead now will set the tone and pace for a powerful and career-making experience for everyone in the sales function. ■



MIKE HOFF,  
CEO, MHC Consulting and Regional  
Group Manager of The Alpha Group.

## THE ALPHA GROUP

# Managing consequences of the pandemic as a team

As a global pandemic, the crisis is affecting every company, every industry and every country, and decisions need to be communicated to employees.

**A**s we all know, we are currently operating in unprecedented and uncertain times. Business owners are trying to manage their cash flow forecast with no knowledge of when we will be officially outside the crisis period and business can get back to normal or whatever the new normal will look like.

In the UAE, we are about to head into notoriously slower business periods, the impact of this year's Holy month of Ramadan and summer period is unknown, however what is clear is that companies are having to take drastic decisions today with their most expensive resource, its employees, in order to

survive.

Tough and painful decisions are being made every day. We are seeing employees being sent home on unpaid leave, asked to reduce their hours or retain their full-time hours but take a temporary salary cut. Drastic decisions that help immediately with cash flow management but obviously have an adverse effect on employee's commitment and mindset.

So how do you keep your employees committed to the company and keep them effective, ready to hit the ground running once business picks up again?

Our advice is to communicate consistently, honestly and openly.

This crisis is not just affecting your company, your industry or this country, this is a worldwide pandemic, affecting just about every industry in every country. Your employees will no doubt be very conscious of this and will want to know what you are doing in order give them a sense of relief that they know you are doing something about it.

By being open and honest in what you tell them, they can see that you are taking business decisions to help save the company so that they have a job when the crisis is over, its likely to be a relief to them that you are taking these decisions, regardless of how they affect them adversely, just seeing you take action will be seen as a positive.

Communication should be in person ideally or by holding a virtual meeting. Decisions to reduce salaries should be across the board to show fairness in your decision making. Try and be clear that this is a temporary move, and that you will be monitoring the situation consistently.

If reducing salary, this is likely due to your needing the team working hard to keep the business moving, securing deals that can convert once businesses are ready to start spending.

If having to take the decision to send them away on unpaid leave, put into place a method of communicating weekly, keeping track of each team member. Set up a WhatsApp group, communicate consistently on this and answering any questions they ask.

It is at times like this that your company values come into action. If you have installed a company culture where the team are all involved in the company so that they feel a sense of comradery, stressful situation, such as this, will only strengthen the team. ■



TABREZ SURVE,  
Regional Director Gulf, Levant and  
Turkey, F5 Networks.

## F5 NETWORKS

# Pandemic also wakeup call for healthcare security

The healthcare industry is as targeted by phishing attacks as finance and education, and attackers are using HTTPS web sites to increase deception.

**T**he stakes are high. Healthcare organisations face entirely different dangers to the average business, with significant humanitarian and ethical dimensions to consider.

Unsurprisingly, healthcare organisations around the world conform to strict regulations. For example, the UK's National Health Service has specific security policies and so does the US via the Health Insurance Portability and Accountability Act.

There are many others across the world, all of which tend to be designed for rigorous data privacy. Patient data should only be accessible on a need-to-know basis and patients must have control over

how their data is used and what is kept on file.

While that is all well and good, it is hardly a deterrent to determined hackers.

### REALITY CHECK

A recent study by Vanderbilt University's Owen Graduate School of Management found that it takes healthcare facilities hit by a data breach or ransomware an extra 2.7 minutes to respond to a patient with a suspected heart attack.

This could result in as many as 36 additional deaths per 10,000 heart attacks that occur each year. The study also found that at least 10% of the more than 3,000 Medicare-certified hospitals on

AS MANY AS  
71% OF  
PHISHING SITES  
USING HTTPS TO  
APPEAR MORE  
LEGITIMATE.

the US Department of Health and Human Services list were hit by a cyberattack.

Phishing remains an enduring favourite to catch people out. Based on analysis from the past year, F5 Labs believes phishing is now the most prominent attack method used to breach data, with the healthcare industry one of the most at-risk rubbing shoulders with other prone sectors like finance and education.

Attackers do not have to worry about hacking through a firewall, finding a zero-day exploit, deciphering encryption, or rappelling down an elevator shaft with a set of lockpicks in their teeth. The hardest part is coming up with a good trick email pitch to get people to click on, and a fake site to land on.

Meanwhile, phishing and spear-phishing attacks are evolving and are no longer crude and easy to spot. A key recurring trend is that phishers continue to push for deceptive credibility, with as many as 71% of phishing sites using HTTPS to appear more legitimate. F5 Labs also found that 85% of analysed phishing sites that make use of digital certificates have them signed by a trusted Certificate Authority.

Organised cybercrime groups and nation-states expend significant effort to understand their victims and take advantage of social engineering techniques, such as targeting victims when they are busy





**85%** OF ANALYSED PHISHING SITES THAT MAKE USE OF DIGITAL CERTIFICATES HAVE THEM SIGNED BY A TRUSTED CERTIFICATE AUTHORITY.

and overwhelmed which, as most healthcare professionals will attest, is not an uncommon situation.

This exactly why healthcare organisations need to ensure all employees understand the importance of securing the business's IT infrastructure and the consequences of not doing so.

#### BASIC STEPS

Recommended technical security controls include Multifactor authentication and implementing web filtering solutions to prevent users from inadvertently visiting phishing sites. It is also essential to inspect encrypted traffic for malware.

At the same time, there is no room to skimp on cultural enhancements. Regular, mandatory compliance sessions, and best practice courses can help. This should include a streamlined and guiltless methods for users to flag suspected attacks.

Traditional approaches to security, such as focusing on IT environment perimeters, will not work as well anymore. IT teams across the healthcare industry need to learn from mistakes and oversights of the past, working closely with all end-users of the technology to create processes that ensure patches are carried out regularly and effectively.

Healthcare organisations also need to invest in technology that maintains data security that can expand across the entire network. For example, a web application security solution could simplify regulatory audits by tokenising sensitive data and help

providers control the flow of data, while maintaining the highest confidentiality standards and increasing the quality of care.

In an ideal world, the healthcare sector will evolve to be more agile, adaptable and attuned to the flourishing application economy. This means moving away from managing traditional reliability models to a more strategic, service-based approach that focuses on application-level service provisioning, automation, and orchestration.

It will also mean creating, deploying, modifying, and extending services quickly to address variables impacting the security, reliability, and performance of applications and networks.

#### MANAGEMENT GAPS

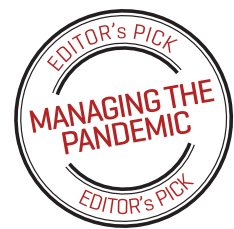
Unfortunately, too many boards still overlook the importance of security. Disconnects are prevalent. Studies among US and UK C-level executives by domain registry Nominet found that 78% admitted to gaps in their knowledge about malware. 68% concede to knowledge gaps about phishing. 66% need to learn more about ransomware.

Budgets are also sometimes assigned without context and overall performance suffers accordingly. Today, the voices of security experts should be heard loud and proud at the top table. There are many ways this could happen, but one obvious tactic is to elevate the importance of the Chief Information and Security Officer.

If the board does not take security seriously, nobody will. If they do not know what is going on, everyone is at risk. All too often, the board sees cybersecurity as a bolt-on insurance policy rather than a fundamental element of both IT and business strategy. That can no longer be the case if healthcare organisations want to adequately and continuously protect staff and patients. ■

#### KEY TAKEAWAYS

- Phishing and spear-phishing attacks are evolving and are no longer crude and easy to spot
- Phishing remains an enduring favourite to catch people out.
- F5 Labs believes phishing is the most prominent attack method used to breach data.
- The healthcare industry is one of most at risk rubbing shoulders with finance and education.
- The hardest part is coming up with a good trick email pitch to get people to click on, and a fake site to land on.



BRIAN KROPP,  
Distinguished Vice President  
Analyst, Gartner.

## GARTNER

# How Asian businesses successfully managed remote work

Organisations in Asia have been tackling these challenges for months and have narrowed down various critical success factors for remote work.

Organisations around the world find themselves in different phases of managing the impact of the COVID-19 pandemic. While the challenges vary by location, industry and business maturity, identifying and implementing the right employee policies and smart approaches to remote work emerge as the most difficult — and the most important.

Employers in Asia have been tackling these issues for months. In the process, they have narrowed down critical success factors for remote work.

It is important that organisations in other parts of the world look to their peers in Asia. While companies in Asia have not yet come out on the other side of this COVID-19 crisis, they are further along than many in newly affected regions and have valuable insights to share.

Insights that Gartner has gleaned

from employers in Asia show these five actions are critical to the success of remote work:

### PROVIDE DIRECTION, CONFIDENCE AND RESILIENCE

Employees rely on leaders at all levels of the business to take action and set the tone. In communications from senior business leaders to managers, prioritise employee health and business sustainability. Communicate regularly and candidly with employees. The briefing poll found that 56% of organisations have communicated an action plan to employees in case the situation worsens.

### CONTEXTUALISE CORONAVIRUS FOR THE ORGANISATION

Make leaders a trusted source for accurate and up-to-date information

on coronavirus and how it is impacting the organisation. Avoid sharing information from social media. Instead, leverage trusted resources such as the World Health Organisation and the Centers for Disease Control. Contextualise information and data as much as possible so that it specifically relates to your organisation.

### ENCOURAGE INTENTIONAL PEER-TO-PEER INTERACTIONS

Urge employees to maintain regular professional and personal interactions with their peers, even if those check-ins are virtual. The online poll showed that 40% of organisations have set up additional virtual check-ins for employees with managers and 32% have introduced new tools for virtual meetings.

Encourage employees to leverage communication platforms they already use, either at work or in their personal lives, to create new ways to work together.

### ESTABLISH TEAM GUIDELINES

Remote work looks different for each employee depending on their needs and those of their family. With unprecedented school closures, many employees must take on a double role as they support their children and families throughout the workday. Organisations can meet employees' needs by empowering teams to adapt to their conflicting time demands. For instance, teams can set core team times where all team members are available to collaborate.

### PROVIDE FLEXIBILITY FOR REMOTE WORK NEEDS

When preparing for the eventual return of employees to the office, empower employees to make choices best suited for their needs and comfort levels. Where possible, allow employees to decide when to return. Enable essential employees whose work requires them to return to the office to choose the hours that work best for them. ■



TIM WOOD,  
Partner and Head of Cyber Security,  
KPMG Lower Gulf.

**KPMG**

## Best practices for organisations and teleworkers

As businesses and remote workers reach the end of 30- or 60-day cycle of remote working, they need to reassess levels of cyber security, both at the organisation and at home.

**A**s organisations around the globe are focused on maintaining service delivery and business continuity amid the COVID-19 crisis, working from home ushers in new opportunities and challenges. Organisations intending to gain maximum productivity from their users would have to ensure the following are in place:

### SECURE REMOTE ACCESS

Provide users with a commercial or corporate licensed VPN that secures and encrypts remote access connections from users over the internet. The VPN software should be updated regularly, and any critical security updates should be installed in a timely manner.

### SECURE PERIMETER NETWORK

Aim to secure the network perimeter to avoid compromise from a user's home network to the organisation's network, as a compromise on organisation network affects

all users and the organisation as a whole. Simple network security basics such as network segmentation, secure protocol and network access are key to achieving this.

### MONITOR THE NETWORK

Cyber risks can never be fully eliminated so, after all controls are in place, organisations need to implement detection mechanisms to continuously monitor remote access activities and detect any malicious activity that might negatively impact the organisation's information assets and staff.

### EMPOWER YOUR USERS

Organisations are likely to go back to basics and empower their users – security is only as strong as its weakest link. Technologies may fail if users are not given proper cybersecurity education and assistance. Remind them of the necessary policies, ensure IT

staff are on call to provide secure tips, resolve issues and provide assistance in securing their home network.

While working from home, users have a critical part to play in the remote working ecosystem. After all, they define what working from home is.

Here are some tips:

### TELEWORKING AND MOBILE DEVICE POLICY

Trust your organisation to secure both your device and their network, so make sure you are aware of your organisation's latest policy.

### SECURE YOUR HOME NETWORK

It is important to ensure your home network is secure. Change your Wi-Fi router default password and do not share your Wi-Fi with untrusted users or neighbors. You can also seek guidance from your internet service provider on how to best secure your home network.

### SECURE YOUR DEVICES

If you are connecting to your organisation's network from a personal device, ensure security controls such as keeping your operating system version up to date, installing any critical security updates and checking that the anti-virus software is regularly updated is key.

### SECURE YOUR PASSWORDS

Use strong passwords for all devices, home router and applications. Do not repeat passwords across personal and corporate applications.

### SECURE INTERNET AND MEDIA USAGE

Do not carelessly surf the Internet. That means: avoid untrusted websites and avoid using personal devices for corporate activities and vice-versa. Do not ignore security warnings.

### SECURE YOUR MICROPHONE AND WEBCAM

Laptop microphones and webcams can easily be compromised by hackers taking control of your home network. Ensure your microphone and webcam are deactivated when not in use, use a webcam lock or cover, and keep your laptop closed or shut off when not in use. ■





TOM DE WAELE,  
Middle East Managing Partner,  
Bain.

## BAIN

# As CEO what is your COVID-19 disaster recovery plan?

The modern world is facing a pandemic for the first time, but that is not reason enough for any CEO not to have a recovery plan moving ahead.

As the novel coronavirus outbreak has upended businesses around the world at alarming speed, one thing has become clear to executives grappling with the crisis: doing nothing is not an option. COVID-19 is unlike any previous crisis and taking traditional crisis-response approaches will not be enough.

With our operations running smoothly and business running effectively amidst the COVID-19 pandemic, we share the steps that CEOs need to take today to mitigate the effects of the outbreak.

The process of containment and slowing the spread of COVID-19 in each country will create major disruption, irrespective of the seriousness of the virus spread. This

should not cause additional fear in a situation that is already frightening for everyone, rather, it is a simple reminder that during times of crisis, such as the financial crisis of 2008, the strong will get stronger and strength here will be defined by clear leadership, plans and actions.

The high likelihood of a substantial revenue disruption will lead to a potential liquidity crisis for many businesses. This could mean that the recovery may not be a quick bounce-back. Accordingly, CEOs need to plan for multiple quarters of lower revenue.

All stakeholders including employees and customers are probably experiencing fear or panic. Hence, you need to appoint a senior, fully dedicated COVID-19 war room

AS CEO, YOU  
MUST BE OUT  
IN FRONT WITH  
POSSIBLE  
ACTIONS, MORE  
AGGRESSIVE  
THAN YOUR TEAM  
CAN IMAGINE.

team focused on this all day, every day.

As CEO, you must be out in front with a planned cascade of possible actions, probably more aggressive than your team can imagine right now. Customers will change some behaviours permanently, accelerating prior trends. Taking bold action now can set you up for success through the downturn and beyond.

## PROTECT EMPLOYEES AND CUSTOMERS

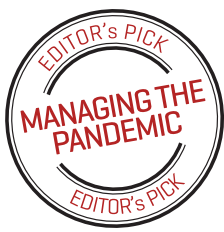
Implement the best-known guidelines available for both employees and customers. This includes monitoring global health guidelines and other companies—and continue to fine tune. Do not be afraid to overcommunicate with full transparency and assist epidemic-limiting initiatives in any way possible.

## STRESS TEST PROFIT AND LIQUIDITY

Outline macro scenarios by market, translate into revenue-decline and P&L scenarios. You should also build extreme downside scenarios as this has the potential to be a 100-year event. Therefore, an outline of the major operational actions should be in place.

## DEFEND AGAINST REVENUE DECLINES

You need to take a customer-centric view and ask yourself questions like how you will build trust, loyalty and market share through and beyond



## KEY TAKEAWAYS

- Customers will change some behaviours permanently, accelerating prior trends.
- Taking bold action now can set you up for success through the downturn and beyond.
- You should build extreme downside scenarios as this has the potential to be a 100-year event.

this crisis. Similarly, you should build specific revenue-mitigation actions for declines in core revenue streams.

## STABILISE OPERATIONS

Stabilise supply chains of physical goods from likely geographic and labor disruptions while building contingency operational plans for all aspects of the business.

## CONSERVE CASH

You can control the spending handbrakes by initiating immediate actions, hiring freeze, opex, capex, working capital. Similarly, set aggressive break-the-glass cost actions triggered by more extreme revenue scenarios. Outline a medium-term plan to lean out the cost structure for the future. It should be a plan that is more automated, more variable and, more shock resistant

## PLAY OFFENSE, NOT JUST DEFENSE

Define how you will outperform competitors and expand share through and beyond the crisis. This also means that you should prepare for bounce-back and recovery. At the same time, plan for and take advantage of a leapfrog change in customer behavior — especially digital.

There are several moves that CEOs can take right now to help

# CEO'S ACTION PLAN

- *Get the full team aligned with the true severity of the macro COVID-19 situation and worst-case financial scenarios.*
- *Set safety as the number one priority.*
- *Set cash conservation and liquidity as a secondary priority.*
- *Avoid inaction, wait and see approach could damage the company.*
- *Establish a dedicated senior team in a war-room setting.*
- *Set up a senior, dedicated team from multiple disciplines.*
- *Prioritise and put major work streams into action.*
- *Set a tone of daily progress using an Agile Methodology.*
- *Break the usual reporting and update cycles.*
- *Urgency of the situation requires a different model, such as daily informal CEO updates.*
- *Put a tracking tool in place.*
- *Outline macro scenarios and translate to contingency plans.*
- *Outline specific macro COVID-19 scenarios by major geographies.*
- *Translate those scenarios into tangible revenue-decline and operational-disruption scenarios.*
- *Begin to outline no-regret moves.*
- *There will be an impact so start acting wisely.*
- *This needs to be done in days, not weeks, and you can continue to iterate.*

ease the impacts of the epidemic and come through stronger on the other side. As the economic fallout continues, business leaders will want to first model their exposure to the coronavirus fallout and street test their P&L and liquidity. There will be critical “triggers” where more aggressive actions will be needed.

It is obvious that the COVID-19 outbreak is unlike any previous crisis. Hence, CEOs need a unique, tailored and immediate crisis-response. A wait-and-see approach has no chance of being effective. CEOs should be aware of the situation and up to speed with the latest updates. ■



**VIRESH HARDUTH,**  
Vice President, Small Business,  
Sage Africa & Middle East.

**SAGE**

## How small businesses can start their virtual company

To go online a small business needs to be familiar with cloud tools including business applications and must be able to manage an online team.

**A**s a small business owner, you are more than likely tired of paying expensive commercial rentals and fighting traffic daily to get to the office. The good news is that today's technology means you can work from just about anywhere if you have internet access. By turning your company into a virtual business, you can trim costs, improve flexibility and give teams the freedom to work remotely.

Wi-Fi hotspots are widely available, fast mobile broadband covers you where Wi-Fi does not, and you can access applications and data from almost anywhere in the world, provided you have

a smartphone or notebook. It is becoming increasingly viable and attractive for small companies to ditch their expensive brick-and-mortar offices, face-to-face meetings and endless paper documents to go virtual.

Here are a few tips on how to start or run a successful virtual business:

### RIGHT TOOLS

To run a successful virtual business, you need to invest in the right tools. If you are working from home and doing a lot of video-conference calls, you need to invest in a cost-effective fibre Internet package that offers excellent audio-visual

TO RUN A  
SUCCESSFUL  
VIRTUAL  
BUSINESS, YOU  
NEED TO INVEST  
IN THE RIGHT  
TOOLS.

quality. Spending a lot of time on the road means you should purchase mobile devices – smartphone, tablet, notebook – that are powerful, portable and comfortable to use.

You may also need to consider a reliable mobile data solution. It may make sense to invest in data SIMs from two mobile providers in case you are in an area where your primary provider offers poor coverage.

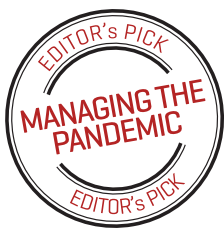
### CLOUD SOLUTIONS

Running your virtual business using paper-based records or spreadsheets is outdated. The most successful virtual businesses automate business processes to save time and money. Today, you have many powerful cloud and software-as-a-service tools that can help you run a lean, efficient business. You access these solutions online and pay an affordable monthly or annual subscription to use them.

For example, marketing automation tools can help you generate automated direct marketing e-mails targeted at your customers, schedule social media and blog posts, track inbound sales leads, and so much more.

Cloud-based accounting and payroll solutions can enable you to streamline quotations and invoicing, financial reporting, compliance and reconciliations. Your investment in





## RUNNING YOUR VIRTUAL BUSINESS USING PAPER-BASED RECORDS OR SPREADSHEETS IS OUTDATED.

these solutions is quickly recovered in the time savings alone they deliver.

If you have an accountant helping you, he or she can also login any time and have a virtual catch-up session with you to discuss monthly forecasts. Another bonus, with online apps, your data is automatically backed up to the cloud.

### VIRTUAL TEAM

If you are going to build a virtual business, you can be more flexible about how and where you source talented people to help you grow your business. For example, it might make sense to get freelancers or contractors to help with finance or marketing.

You can employ an accounting firm to help with filing tax returns and financial statements, while collaborating in the cloud. If you do project-based work, you could round up the right team to collaborate with for every contract rather than employing full-time resources. It allows you to quickly scale your team based on the workload you have at any given time.

For admin-related tasks, consider a Virtual Assistant to help you with the mundane chores so you can focus on growing your business. Artificial intelligence can also be part of the team. Another tip is to look at using

chatbots on channels like your Facebook page. They can answer basic customer queries and, today's chatbot development tools don't always require you to know any coding.

### WORK TOGETHER

The cloud makes it easy for you to interact and share files, ideas and data with your virtual team – wherever they are. Encourage everyone you work with to standardise on the same set of tools.

### FOR EXAMPLE:

- File sharing and back-up: DropBox, GoogleDrive or OneDrive
- Voice and video comms: Webex or Skype for Business
- Accounting and payroll: Sage Business Cloud
- Messaging to make communication and sharing: Slack or Microsoft Teams

Also, consider using an e-mail solution such as G-Suite where you can access your business e-mails on the go. Some of these tools are also a great solution to introduce to clients to demonstrate your prowess as a technology-driven small business.

Not all your customers may be ready to go virtual. However, providers such as Regus and The Business Centre offer virtual office services for an affordable monthly fee. Among the many benefits they offer are a receptionist to respond to calls referencing your company and take messages, as well as boardrooms in prime locations for face-to-face meetings.

These innovative 21st century tools can help you portray the right image or provide comfort and confidence to your customers. ■

IF YOU ARE GOING TO BUILD A VIRTUAL BUSINESS, YOU CAN BE MORE FLEXIBLE ABOUT HOW YOU SOURCE TALENTED PEOPLE.

# TECHNOLOGIES BOOSTING NATION TRANSFORMATION

As regional governments battle the impact of COVID-19, a look at underlying technologies and efficiencies that can help manage the future impact.

Dr Paul Hopkinson,  
Heriot-Watt University

Jyoti Lalchandani, IDC

Rami Kichli,  
Software AG

Ranjith Kaippada,  
Cloud Box Technologies

Sergio Maccotta, SAP

## CLOUD BOX TECHNOLOGIES

# DIGITAL TRANSFORMATION AT HEART OF VISION STATEMENTS

Vision statements and government initiatives are setting the stage for digital innovation, to play a role in the economic growth of the Middle East.



RANJITH KAIPPADA,  
General Manager,  
Cloud Box Technologies.

Digital technologies are about transforming lives for citizens and residents. It begins with the government's visions of making their nation or city a digital one, which is smart and resilient. Digital transformation and technology are at the heart of many regional governments' initiatives such as the UAE's Vision 2021, UAE's National Innovation Strategy, and the Saudi Vision 2030 to name some.

Vision statements and government-led initiatives are setting the stage for digital innovation, to play a long-term role in the economic growth of the Middle East.

The UAE is an example, where a digital agenda forms the core of the country's national vision. The country has taken a leadership role in the region when it comes to digital transformation and technology adoption with an aim to drive GDP growth, foster innovation, strengthen global competitiveness and create new jobs.

From government services to transport to telecommunications to utilities, many key government entities are adopting the latest technologies to ensure a well-connected system for the public, which will enhance citizen experience and increase productivity – factors that will lead to a globally competitive economy. These technologies will also ensure sustainability and a cleaner environment.

DEWA and RTA are examples of how adoption of digital technologies helps residents with ease of using services, saving costs, reducing expenditure and carbon footprint, and increasing happiness.

Citizens and residents expect government and public services to be personalised and this is being done by governments across the world. They are adopting technologies such as cloud, Artificial Intelligence, Machine Learning, Big Data and Analytics, Robotic Process Automation, blockchain, IoT, cybersecurity to name a few technologies to enhance citizen's experience by improving service quality and ensuring speedy delivery of services.

Governments are adopting these

digital technologies for e-Services, Smart cities and Smart government, next-generation healthcare, classrooms of the future, smart tourism, autonomous transport and for environmental innovation in the Energy sector. Even the private and public sector are adopting different technologies in line with the government initiatives.

Using the latest digital technologies, nations can move ahead and grow their economies, increase the number of high skilled jobs, and improve quality of life for their citizens.

The UAE introduced plans to develop and exploit 3-D printing, with the potential to revolutionise the construction industry. The UAE government's autonomous transportation strategy is targeting 25% of all trips inside Dubai to be driverless by 2030. The list of path-breaking, global first's in UAE also includes: the world's first Minister for Artificial Intelligence; pilot trials of pneumatic trains and flying taxis; and robotic policeman capable of issuing fines, providing video feeds, and identifying people through facial recognition, amongst others.

Adopting digital technologies require both IT and business to work together to map out the digital transformation journey. Some of the challenges are lack of digitalisation strategy, budget constraints, complex organisation structure, lack of expertise and skills, policy bottlenecks and bureaucratic inertia, privacy and security, lack of innovation and transitioning staff to new technologies. ■



HERIOT-WATT

UNIVERSITY DUBAI

# NATIONS ALSO NEED TO ADOPT DIGITAL TRANSFORMATION

Similar to businesses, nations also need to embrace digital technologies and progress along a journey of a transformation.



DR PAUL HOPKINSON,  
Associate Head of Edinburgh Business  
School, Heriot-Watt University Dubai.

Digital technologies, in particular, have the potential to transform entire industries as we have seen in sector such a retail with the growth of e-commerce providers, hospitality and transportation with the growth of the sharing economy. In this regard we have seen the emergence also of entirely new business models and the growth of platform-based competitors, typified by companies such as Uber, Lyft, AirBnB and SAP.

Economists consider productivity

to be a nation's long-run growth engine. At the same time, almost all economists agree that digital technologies are a necessity in order to achieve permanent increases in the productivity of a nation. For example, according to a study by Accenture, technology innovations have the potential to increase labor productivity by as much as 40% in 2035. Indeed, a government which effectively uses digital technologies is able to progress faster, compete better and in the long run, become more prosperous.

For a nation, some examples of ways by which digital technologies can help it transform are:

- Technology can enable faster and highly efficient communication. The use of email and video calling can transform the pace at which work is undertaken
- Technology can enable collaboration. When teams in different locations are able to discuss, plan, execute, and track work all in one place, it saves both time and money and allows them to focus on simply getting the job done
- Manual tasks which are automated enable significantly higher quantity and quality of deliverables. It also allows promotion of higher-value work.

## MILESTONES

An in-depth study undertaken by MIT Sloan Management Review

and Capgemini Consulting finds that companies all experience similar milestones in their digital transformation journey.

Some of these are as follows:

## CUSTOMER EXPERIENCE

Digital transformation has helped organisations build positive relationships with their consumers massively, which in turn boosts brand loyalty.

## OPERATIONAL EXCELLENCE

The first impact of digital transformation is almost always on operational efficiencies.

## BUSINESS MODEL CHANGE

We have also seen the emergence of new operating modes and platform-based competitors which have radically disrupted a wide range of industries from transportation, retailing through to hospitality.

## ROLE MODELS

In Dubai, the first ICT strategy was announced in 1999, followed by the launch of Dubai Internet City, Dubai e-government, Dubai Smart Government and the Smart Dubai initiative. Several digital transformation initiatives have improved the quality of life in all aspects. Dubai Police uses a digital solution that allows citizens to pay fines, report crimes and traffic accidents.

ACCORDING TO A STUDY BY ACCENTURE, TECHNOLOGY INNOVATIONS HAVE THE POTENTIAL TO INCREASE LABOR PRODUCTIVITY BY AS MUCH AS 40% IN 2035.

We have also seen the first smart police stations win areas such as Dubai Silicon Oasis, which are completely enabled by technology. Petroleum giant ENOC offers an RFID-enabled fueling system for cashless and cardless automated payments. And the Smart Dubai 2021 vision aims to make Dubai the happiest city on earth by embracing technology innovation in areas as diverse as smart buildings, smart roads, smart energy, smart justice and more. These developments are underpinned by the use of disruptive technologies such as AI, Blockchain, AR and VR.

There are several examples of countries which have transformed themselves into rich and industrialised nations as a result of digital technologies.

As the third biggest economy globally, Japan always embraced technology and has pioneered several disruptive innovative technologies such as pocket calculators, the Sony Walkman and LED lights. The nation has successfully used tech in several ways to become one of the most industrialised nations in the world.

The Chinese government places great emphasis on science and technology as a fundamental driver of the nation's growth. Digital transformation has ensured its place today as a world leader.

For most of the 20th century, Germany has won more Nobel Prizes in the sciences than any other nation. The country's focus on digital transformation has made Germany a world leader in innovation with several science and technology feathers in its cap.

UAE was ranked the first in the

Arab region and 12th globally among highly competitive countries in the IMD World Digital Competitiveness Ranking 2019. The nation is a great example of how progress can be achieved through the use of technology. The UAE is widely held to be one of the world's most advanced digital economies. This was born out in a recent Fletcher School, Tufts University Digital Planet report.

## CHALLENGES

Some of the most common challenges faced by nations are as follows:

There is substantial investment which needs to be made in upskilling and process innovation. Past best practices suggest that every dollar invested in ICT should be matched with a \$4 or \$5 investment in process improvement and training.

The digital technology ecosystem is highly interdependent and includes numerous strands such as digital platforms, communication, digital economy skills, cyber policies and much more. There should be equal focus on all aspects in order to reap benefits.

Digital transformation cannot happen without leadership and institutional capabilities. These capabilities are crucial to bring about a shared vision, mobilise commitment and bring about change.

Digital transformation requires cultural change as well as technology implementation. Indeed, there is significant evidence to suggest that the latter is the most important of the transformation process.

Digital transformation always needs to be accompanied with upskilling. For technology to succeed, the workforce needs to be able to harness it effectively.

A McKinsey Global Institute report states that 62% of executives believe they will need to retrain or replace more than a quarter of their workforce between now and 2030 due to automation and digitisation. ■

## KEY TAKEAWAYS

- Germany has won more Nobel Prizes in the sciences than any other nation.
- Japan always embraced technology and pioneered several disruptive innovative technologies.
- Digital transformation cannot happen without leadership and institutional capabilities.
- Digital transformation requires cultural change as well as technology implementation.
- Digital transformation always needs to be accompanied with upskilling.
- A McKinsey Global Institute report states that 62% of executives believe they will need to retrain more than a quarter of their workforce.

IDC

# DISTRAUGHT, DETERMINED, DISRUPTIVE

Nations move through three distinct phases of transformation, enabled by various technologies including cloud, blockchain, IoT Edge, and AI.



JYOTI LALCHANDANI,  
Group Vice President and Regional  
Managing Director META, IDC.

To thrive in the digital economy, government organisations should take a digitally enabled citizen-centric approach. At the heart of this approach is the need to provide a continuous personalised citizen experience. The millennials and generation Z, who forms 68% of the GCC population today, are digital natives who are always connected and prefer one brand, one experience.

For past couple of decades, the government organisations have been focused on bringing their services online and mobile by

breaking the silos within their organisation. Today, national and local governments as well as city administrations must think themselves as one big government organisation or brand and provide a single continuous citizen experience across the brand.

To provide such citizen experiences, government organisations need to transform themselves into digital enterprises, characterised by organisation-wide digital transformation plans supported by dedicated digital transformation teams and budgets. These organisations consider their ICT infrastructure among their critical infrastructure, extending their thinking beyond physical assets.

## TECHNOLOGIES

They progressively find new use cases for technologies such as artificial intelligence, blockchain, IoT edge and focus on scaling them organisation wide. The need for rapid rollout of applications require the IT teams of such organisations to become digital innovations factories and prolific software producers.

A myriad of technologies enables an organisations journey towards a digital enterprise. Among them are three technologies that are of particular interest to government organisations:

## ARTIFICIAL INTELLIGENCE

This enables government organisations to provide continuous

personalised citizen experience at scale. IDC predicts that by 2024, with proactive, hyperspeed operational changes and market reactions, AI-powered enterprises will respond to customers, competitors, regulators, and partners 50% faster than their peers.

## IOT EDGE

One of the key characteristics of the digital economy is the focus on real-time. This is particularly important for government agencies catering to public safety and transportation where real time data collection and processing becomes critical for emergency services, crime detection and prevention, and autonomous transport. IDC estimates that, by 2025, roughly a quarter of all data that is generated globally will be created in real time.

Various Internet of Things IoT devices will create 95% of that volume growth. These devices often are endpoints for various types of networks, and on sprawling government networks, they often include traffic sensors, security cameras, building security devices, weather monitors, and water and sewer flow monitors. This means that a lot of action must happen in the edge highlighting the need for establishing edge-based processing power, with onboard analytics, that can be augmented by artificial intelligence AI.

## BLOCKCHAIN

A key objective of government

## KEY TAKEAWAYS

- As digital infrastructure becomes critical infrastructure, a technology risk will also become a business risk.
- National and local governments must think themselves as one big government brand and provide a single citizen experience.
- To provide such citizen experiences, government organisations need to transform themselves into digital enterprises.
- One of the key characteristics of the digital economy is the focus on real-time.
- Real time data collection and processing becomes critical for emergency services, crime detection and prevention, and autonomous transport.
- IDC estimates by 2025, roughly a quarter of all data that is generated globally will be created in real time.

organisations is to bring authenticity to transactions and documents – ranging from certificates, contracts, identities, records. Blockchain is becoming a powerful tool for governments to reduce fraud, and boost security. IDC predicts that, by 2023, 20% of governments will issue blockchain-enabled identities, which follow citizens through life, ranging from birth certificates to driver's licenses to passports and beyond.

### MILESTONES

The transformation journey of a government organisation can be divided into three broad stages:

#### DIGITALLY DISTRAUGHT

There is no technology-driven national or sectoral vision that guides the organisations and most of them do not have a formal digital transformation strategy. The digital initiatives are mostly restricted within departments creating silos of innovation.

Many services are online and mobile, but manual processes in the back-end results in broken experiences which require multiple physical visits by citizens.

#### DIGITALLY DETERMINED

Organisations are driven by a technology-driven national vision. Many government organisations have a formal digital transformation plan with dedicated teams and budgets. The governments have started thinking in lines of customer journeys and digital identities.

These are currently restricted to the progressive entities but with plans to extend them. Some back-end processes are automated with artificial intelligence used for narrow tasks. Many use cases for blockchain emerges with some successful pilots.

#### DIGITALLY DISRUPTIVE

Progressive national targets drive widespread digital transformation initiatives. Government provides continuous citizen experiences with customer journeys and digital identities covering most government

organisations.

The progressive organisations are paperless and the government takes a cloud-native approach. Blockchain use cases are scaled and artificial intelligence mature from nature tasks to complex processes.

### ROLE MODEL

A good example of digital governance comes from the city of Seoul, South Korea. Seoul's metropolitan government's smart city platform provides citizens with complete real-time view of what's happening in the city. Based on the administrative philosophy that citizens are the mayors, the government has publicly deployed the platform to its mobile website and digital information kiosks in metro stations.

The intent is to provide citizens with the same real-time access as the mayor to information on transportation, disasters, air quality, consumer prices, day-to-day matters and other available big data.

### CHALLENGES

The two key challenges that governments face through their transformation journey pertain to legacy infrastructures and security. Many digital transformation initiatives hit the legacy infrastructure roadblock restricting their scalability. Government organisations have to take the platform approach to overcome this challenge. Digital enterprises thrive on platforms and enable them to provide digital products and services without rip-and-replace their legacy infrastructure.

As digital infrastructure becomes critical infrastructure, a technology risk will also become a business risk, increasing the importance of IT security. In the digital economy, the digital trustworthiness of the organisation becomes important and the trust environment goes beyond the traditional ideas of security, risk, and compliance; and includes privacy and ethical business operations as well. ■



## SOFTWARE AG

# GOVTS EMBRACE TECHNOLOGIES TO TRANSFORM SERVICES

Not only do governments need to embrace the right technologies, they also need to increase efficiencies and positively impact everyday lives.



RAMÍ KICHLI,  
Vice-President, Software AG,  
Gulf and Levant.

Digitalisation is no longer a choice, it has become critical across industries and most importantly at the helm – the government. While transformation can lead to a nation becoming more productive and efficient, government organisations at any given point in time are in a certain phase of transformation; the phase which will continue to evolve to embrace newer technologies to fulfill their national commitments.

The future is not just about embracing new technologies; it is how these new technologies are impacting everyday lives, thereby creating increased levels of efficiencies and productivity and transforming public services.

Cross-collaboration amongst government entities through digitalisation directly impacts and boosts end user services making them more seamless, effective and efficient. This enables entities to share data, resources and information to better serve larger communities and residents. The saved time allows for more productivity allowing free time to build on future-focused innovative thoughts and programs.

A city that is constantly innovating automatically transforms into a city that encourages, builds awareness and educates its residents, citizens, visitors, on modern technologies and the impact of changing policies in everyday lives, thereby encouraging individuals to embrace new technologies. The government plays a vital role in changing mindsets when it comes to the adoption of new technologies.

Through automation of data collection and other processes, workflows and end user services are quicker and far more efficient. Automation helps in delivering consistent end user experiences effectively interconnecting

government departments with the highest levels of security by eliminating the handling of physical documents by different departments.

Any cost savings that are a result of automation are driven down to the consumer level in lower service prices, encouraging consistent demand, output and thereby an increase in employment across the country. This automatically results in increased employee benefits and packages in the long run.

## ROLE MODEL

Certain initiatives led by Smart Dubai under its 2021 vision that are in the works such as the Dubai paperless strategy aim to increase time saving efficiencies while reducing manual paperwork and resulting in more time on hand for officials within different departments to spur innovative ideas that further elevate the nation's innovation agenda.

The Smart Dubai-Software AG partnership, is in line with Smart Dubai's paperless strategy of 2021. While the larger objective is going paperless, the new offering will in the process interconnect Dubai wide government entities and key private sector systems and processes to simplify processes for citizens, residents, tourists, students, investors and business visitors in Dubai. After 2021, government entities will stop issuing and requesting paper documents.

## THE SMART DUBAI-SOFTWARE AG PARTNERSHIP, IS IN LINE WITH SMART DUBAI'S PAPERLESS STRATEGY OF 2021.

Another comprehensive initiative is Abu Dhabi Municipality's Smart Cities and Artificial Intelligence project – the Zayed Smart City project which was all about digitally transforming the environmental, social and financial aspects of urban city life.

The Zayed Smart City Project led key components across the city to be connected in different use-cases that included air-quality monitoring, asset tracking and logistics monitoring, structural health monitoring, water metering, palm tree weevil detection, street lighting, smart parking, waste management, water storage tank monitoring and swimming pool monitoring.

The Georgia Technology Authority manages the delivery of IT infrastructure services to 85 executive branch agencies and managed network services of 1,400 state and local government entities in the United States.

In line with its vision of creating a transparent, integrated enterprise for citizens, the strategy was deployed across all aspects of the business to expand data-sharing between the federal, state, county and local agencies for eased interoperability, streamlined services, and real-time information exchanges. Connectivity was consolidated across 20 state agencies, 38 touch points, 300+ processes and 700,000+ data exchanges a day.

Today car accidents are reported through the Dubai Police app,

issuance of good conduct certificates are online and several other public services are now digital and experienced by residents and citizens.

### TECHNOLOGIES

In UAE in particular new technologies such as artificial intelligence, Internet of Things, blockchain and the comprehensive use of data analysis are rapidly gaining momentum into the public service offerings for improved efficiencies, seamless experiences and qualitative improvements.

Some of the key technologies and platforms include enterprise architecture, cloud planning and management, government strategy synchronisation, strategy operationalisation, technology road mapping, application portfolio management, technology portfolio management, data capture and maintenance, technology project planning, Smart-data driven analytics, artificial intelligence.

### CHALLENGE

Organisations need to do away with digital silos for successful digital transformations. With insufficient collaboration and integration in project management, it increases the possibilities for a digital transformation initiative to fail and therefore needs to be addressed.

The rise and adoption of future technologies is often followed by a rise in new regulations to govern the use and applications of these technologies. Speaking of the imminent paperless strategy, digital signatures and paperless contracts will have revised regulations in place.

The banking sector is another rapidly digitalising industry in which new guidelines continue to evolve for the rapidly developing infrastructure to be able to embed the technologies and systems into the organisation and the larger ecosystem. ■

### KEY TAKEAWAYS

- Cross-collaboration amongst government entities through digitalisation directly impacts and boosts end user services.
- In UAE, artificial intelligence, Internet of Things, blockchain, data analysis is rapidly gaining momentum.

SAP

# DIGITAL TRANSFORMATION CREATING ENGAGED CITIZENS

While GCC countries are prioritising citizen experiences in their transformation journey, only two-thirds leverage customer citizen feedback.



SERGIO MACCOTTA,  
Senior Vice President,  
SAP Middle East South

Digital transformation is a journey, not a destination. Once governments have adopted and integrated emerging technologies like AI, machine learning, IoT, and blockchain, they can enable near-universal digital interactions between citizens, visitors, organisations, and the government.

Governments need to be constantly iterating and developing new innovations that can meet the needs of the country's economy, society, and environment.

Digital transformation is the cornerstone of enhancing the GCC's

economy, society, and environment. Not only so, but a nation's maturity in digital transformation also grants resilience to its responsive mechanisms in tackling unprecedented situations like the current Covid-19 outbreak.

In the era of the experience economy, in which organisations move from products and services to experiences, GCC countries need to prioritise citizen experiences in their digital transformation.

A recent YouGov survey shows that 96% of GCC organisations rank customer citizen experience as a 2020 business priority. However, only two-thirds 66% effectively leverage customer citizen feedback.

This experience gap illustrates why countries need to better listen, understand, and act on citizen insights to create engaging experiences – which can make engaging with the government faster and easier.

Already the UAE, thanks to UAE Vision 2021, has among the world's leading government-led future technology initiatives, such as Dubai's Internet of Things Strategy, the Emirates Blockchain Strategy, the UAE Strategy for AI, and the UAE Strategy for the Fourth Industrial Revolution.

Nationwide digital transformation first requires modernising a country's technology infrastructure – from broadband fixed-line to 5G mobile networks, and real-time applications for government services.

Using an integrated platform of cloud, AI, machine learning,

IoT, and blockchain, Smart Cities can reduce traffic congestion and support sustainability, Government services can make it easier and more convenient for citizens and residents to interact with agencies, digital oilfields can optimise production and asset management and maintenance, and smart utilities can manage usage peaks and e-payment of bills.

Public cloud is the foundational technology for enabling Smart Cities and smart countries across the region – enhancing citizen experiences, optimising costs, and adopting emerging technology innovations.

For example, a recent YouGov survey shows that 76% of UAE organisations agree that the public cloud is important for integrating artificial intelligence, machine learning, Internet of Things, and blockchain. Using these technologies, the GCC's Smart Cities can run in real-time, integrate emerging technologies, and meet data sovereignty regulations.

As Millennials and Generation Z enter the workforce, countries need to foster partnerships between the public, private, and educational sectors to train the workforce of the future and more importantly leverage technology to find personalised employment opportunities in their communities.

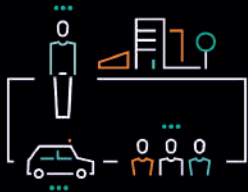
For example, Digital Skills for Today is a massive EMEA-wide initiative that aims to shape the workforce of the future through job-relevant training and employment opportunities. In 2018, Digital Skills for Today introduced 10,777 youth to coding skills and graduated 314 youth from coding bootcamps. ■



## HPE SimpliVity

Intelligent HCI for virtualized, general-purpose workloads, edge, and ROBO

### Intelligently simple



Simplify management, troubleshooting, deployment, scale

- Centrally manage edge to core from single interface
- Update software, hypervisor, and firmware in 1-click
- Resolve 86% of issues before they happen with HPE InfoSight<sup>1</sup>
- Rapidly deploy and scale to meet demand
- Reduce costs by 69%<sup>2</sup>

### Hyper efficient



Achieve exceptional data efficiency, built-in backup, resiliency, and disaster recovery

- Deduplicate data at inception; only unique data is written to disk
- 90% (10X) capacity savings across primary and secondary storage<sup>3</sup>
- Mitigate data loss with built-in data protection
- Restore 1 TB VM in 60 seconds—guaranteed<sup>4</sup>

### Edge optimized



Reduce complexity and overhead for ROBO and edge deployments

- Achieve high availability for each site with only two nodes
- Simplify ROBO/edge site control with centralized management
- Back-up VMs and automate edge to c

## ALL-IN-ONE SYSTEM: ONE PLATFORM, ONE PARTNER, ONE GENERALIST



ToR switches

Servers with hypervisor

Storage switches

High availability  
shared storage

Backup and deduplication

WAN optimization

SSD array

Storage caching

On-premises monitoring



**Collapse silos**



**No specialists required**



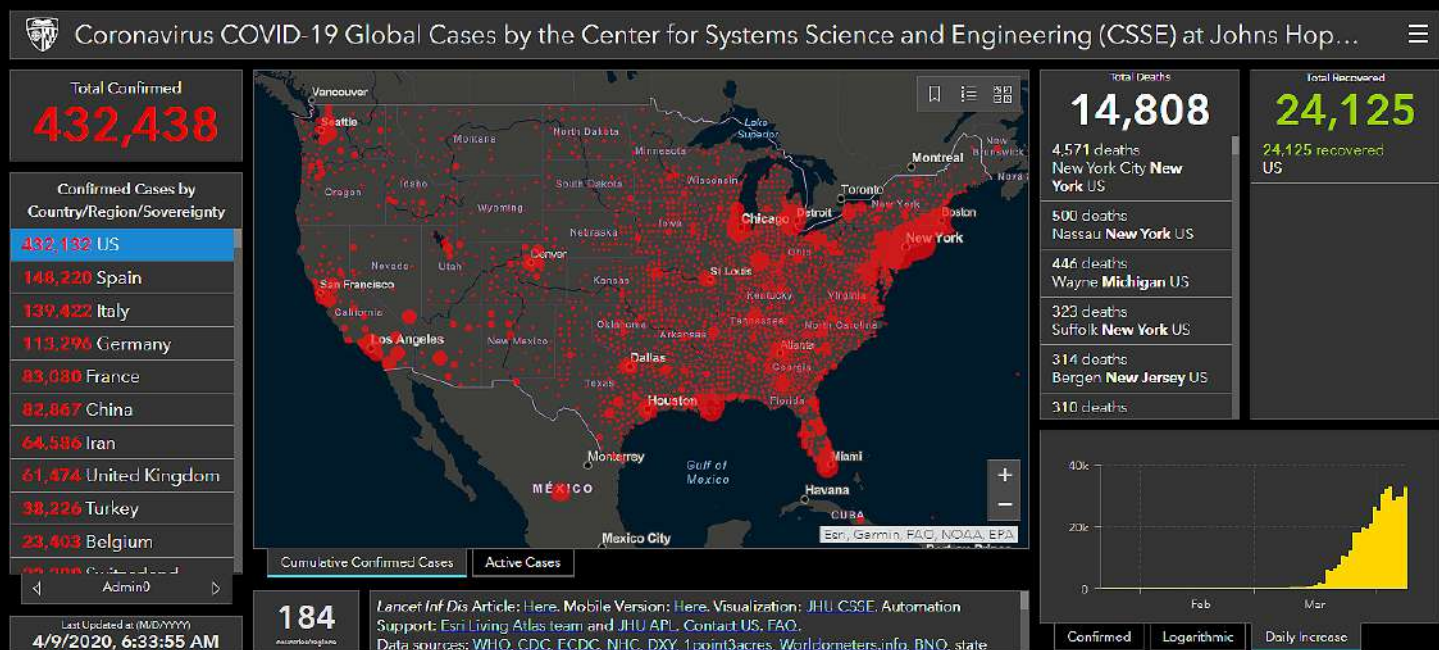
**Lowers overall cost**

To know more contact:

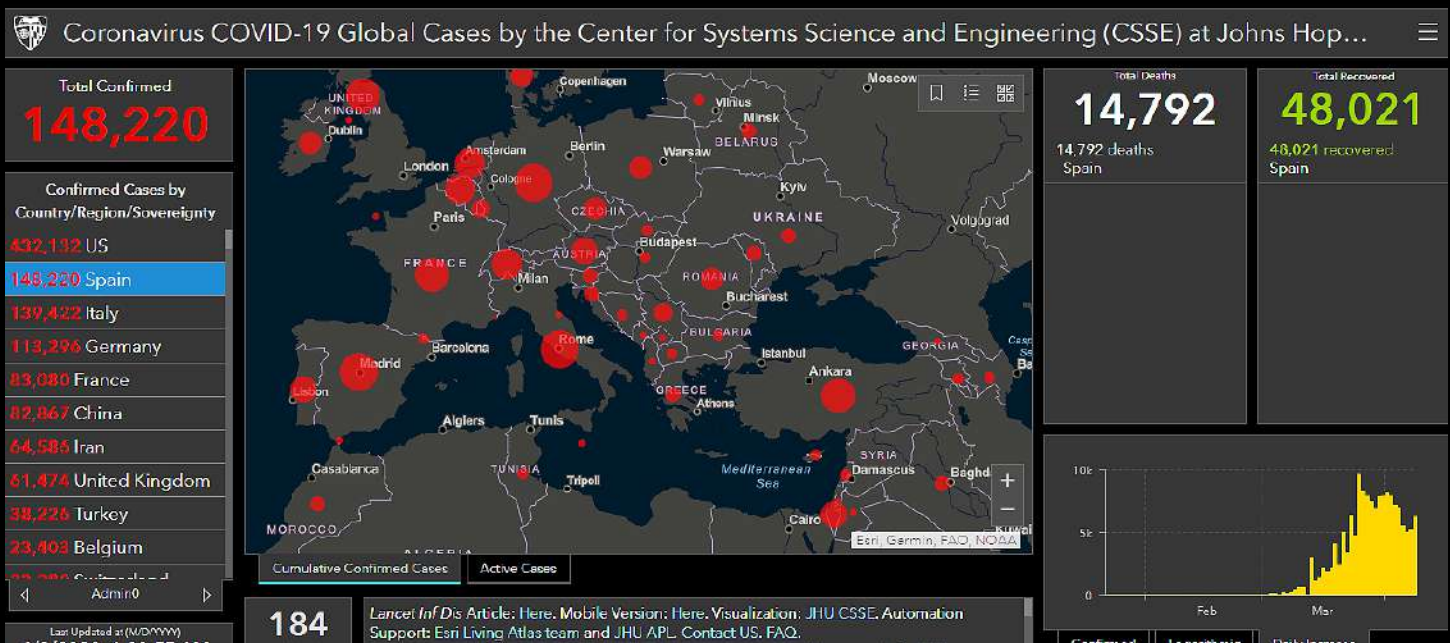
Logicom Qatar | Ibahar Business Center, First Floor, Office No.6, Building No. 122, Street 330, Zone 50, Po Box : 23443, New Salata, Doha – Qatar



## biznesstransform.com



# COVID-19, CROSSING 1.5 MILLION



## TRACKING COVID-19 IN REAL TIME

Center for Systems Science and Engineering at Johns Hopkins University, has created an interactive web-based dashboard to visualise and track reported cases in real-time. The dashboard, illustrates the location and number of confirmed COVID-19 cases, deaths and recoveries for all affected countries. It was developed to provide researchers, public health authorities and the general public with a user-friendly tool to track the outbreak as it unfolds. Before updating the dashboard, the case numbers are confirmed with regional and local health departments. All the data collected and displayed is made freely available, now in a GitHub repository, along with the feature layers of the dashboard, which are now included in the ESRI Living Atlas.

# GCF UNITE WebSummit 2020

A series of thought-provoking and leadership stirring conversations built around critical topics

## WebSummit Schedule

APRIL 12, 2020

Business  
Continuity in  
challenging times

APRIL 14, 2020

Intelligent  
Automation

APRIL 16, 2020

Empowering  
borderless  
enterprises

APRIL 23, 2020

Is digitization the  
only vaccine for an  
affected economy?

APRIL 30, 2020

Workplace  
collaboration and  
effectiveness

MAY 01, 2020

Workforce  
reskilling and  
transformation

MAY 07, 2020

Cloud migration -  
Much needed  
than ever

MAY 14, 2020

Unifying  
global ICT  
committees

MAY 20, 2020

How technology  
enables economy  
amidst crisis

BROUGHT TO YOU BY

BUSINESS  
TRANSFORMATION

Enterprise  
CHANNELS MEA

CYBER SENTINELS

THE TITANS

ORGANIZED BY

GEC  
MEDIA  
GROUP

GLOBAL  
CIO  
FORUM